



BADGER STATE Smoke Signals

For Radio Amateurs • By Radio Amateurs



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Vol. 19 No. 12 - 228th Consecutive Monthly Issue - Baraboo, Wisconsin - December 1988

The Spirit of Christmas

May the
joyous spirit of
the Christmas season
bring you peace
and happiness
through the coming year.

Merry Christmas
to one and all.

The Badger State Smoke Signals Staff:

Ken Ebnetter, K9EN
Chairman

Jim Decker, WB9UQT
Treasurer

Harry Westlund, K9EHJ
Advertising Manager

Jim Romelfanger, K9ZZ
Editor



ARRL Files Petition for Reconsideration in 87-14

On October 19, the ARRL filed its Petition for Reconsideration in Docket 87-14, the FCC order which reallocates 220 - 222 MHz to the Land Mobile Service. The petition is 25 pages long, and contains another 80 pages of exhibits! The strongly worded petition accuses the FCC of predetermining the outcome of the original proposal: "In order to justify what clearly was a predetermined outcome of this proceeding, the Commission failed to address the arguments of the amateur commenters; it extended the reply comment dates after the deadline for filing reply comments without advance notice; it accepted comments from the United Parcel Service more than six months after the close of the already extended comment dates because the record lacked support for the position the Commission had already chosen in this proceeding...."

The ARRL said the Order showed a complete ignorance, and lack of any interest in, the spectrum needs of amateurs. "The extensive, varied and growing uses of the 220 - 222 MHz segment by amateurs are misstated and minimized; arguments made in the thousands of comments of amateurs are virtually ignored, while the need for any reallocation of spectrum for the Land Mobile Service is grossly overstated...."

"Absurd" is the ARRL response to the FCC's statement that the ARRL Repeater Directory "provides the best available representation of amateur fixed/mobile/repeater operations." The ARRL said: "The Repeater Directory is intended to, and does, list only repeaters, and not fixed operations, save for a few unsolicited packet station listings. It thus has no relevance to the fixed, mobile and auxiliary uses made by amateurs at 220 - 222 MHz as there are few repeaters in that segment."

Of course, these facts were pointed out in "volumes of amateur comments" to the FCC. Since the FCC continues to rely on this data, our petition points out that this shows the FCC has never taken any time or effort to obtain its own data; and secondly, it shows that the FCC may not have read the amateur comments sent them!

(Please turn to page 10)

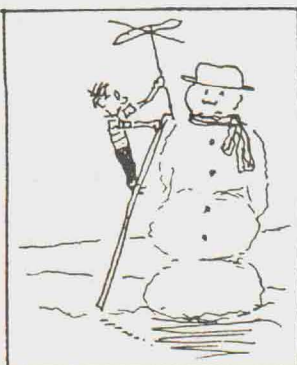
K9KM Wins Again

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ELMER



by Rich Regent, K9GDF



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Smoke Signals**
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SUBSCRIPTIONS

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ADDRESS CHANGES AND CORRECTIONS should be sent to Kenneth A. Ebner, address above.

EDITORIAL MATERIAL, PHOTOGRAPHS, FEATURE ARTICLES, AND EXCHANGE PAPERS should be sent to Jim Romelfanger, address above.

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SUBSCRIPTIONS should be sent, with check or money order (do not send cash), to Jim Decker, address above.

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EDITORIAL DISCLAIMER

The opinions expressed in editorials, guest editorials, columns, articles, and letters are the opinions of the authors only, and do not, unless otherwise stated, express or imply agreement or endorsement by Badger State Smoke Signals, or any other organization.

Swapfests and other Social Events

SATURDAY, JANUARY 14, 1989. West Allis RAC, 17th annual Midwinter Swapfest, Waukesha Co. Exposition Center Forum, Highways J & FT, Waukesha, WI. Free coffee and donuts until 9:00 a.m. Food and refreshments available, Amateur exams (see test point), Packet Radio meeting. Admission: \$2.00 advance or \$3.00 at the door. Reserved tables: \$3.00 or \$4.00 at the door (as available). Reservation deadline: January 2, 1989. **WARAC SWAPFEST**, P.O. Box 1072, Milwaukee, WI 53201. (see ad this issue.)

SUNDAY, JANUARY 29, 1989. Wheaton Community Radio Amateurs **HAMFEST 89**. Held at the Odeum Exposition Center, Villa Park, IL. 500 reserved flea market tables, ladies programs. Tickets

\$4.00 in advance or \$5.00 at the door. SASE To Wheaton Community Radio Amateurs, P.O. Box QSL, Wheaton, IL 60189

MARCH 11, 1989. Fox Cities ARC Swapfest, Appleton, WI.

MARCH 19, 1989. Tri County ARC Swapfest, Jefferson, WI. (see ad on last page)

APRIL 9, 1989. Madison Area Repeater Assn. Swapfest, Madison, WI. (see ad on last page)

JULY 8, 1989. South Milwaukee ARC Swapfest, Oak Creek, WI. (see ad on last page)

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas.

Send information on your event to Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings

BADGER AMATEUR RADIO SOCIETY
(W9YT - UNIVERSITY OF WISCONSIN - MADISON)
Monthly while school in session - 2nd Wednesday - 7:30 p.m. - B-314, Electrical Engineering Building.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)
Second Wednesday.

EAU CLAIRE AMATEUR RADIO CLUB
2nd Tuesday - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)
First and third Tuesdays - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave.

FOX CITIES AMATEUR RADIO CLUB
Third Monday - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 735-6294. Winter Banquet, January 23, 1988. Contact KA9MPP.

GREEN BAY MIKE AND KEY CLUB
Second Thursday - Red Cross Bldg., corner Danz and Deckner, Green Bay.

GREEN FOX AMATEUR RADIO CLUB
Third Monday - 7:30 p.m. - Green Lake Town Hall, int. of county hwy. K and N.

KETTLE MORaine RADIO AMATEURS
Second Friday.

LAKESHORE RPTR. ASSN.
4th Tuesday, Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

MANITOWOC COUNTY RADIO AMATEURS
First Wednesday - 7:00 p.m. - City Hall, 817 Franklin St., Manitowoc.
Second Wednesday - Red Cross Building, 1816 Washington St., Manitowoc.

MENOMONEE FALLS AMATEUR RADIO CLUB
Last Tuesday - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB
Fourth Thursday - Wauwatosa Savings and Loan, 7500 W. State St. (November on the third Thursday. No meetings in July, August and December.) Meetings begin at 7:00 pm.

OZAUKEE RADIO CLUB
Second Wednesday - 7:30 p.m. - Saukville Community Center.

QCWA - WISCONSIN CHAPTER #55
For information about QCWA, contact Richard Regent, K9GDF or Mickey Dolgin, KB9G. The Wisconsin Chapter holds Spring and Fall dinner meetings. (Watch BSSS for dates.) You are invited to check in the QCWA net on Sundays on 3.985 MHz. at 8:30 a.m.

QCWA - SOUTHEAST WISCONSIN CHAPTER #162
Meets third Monday monthly, 7:30 p.m., Around the Clock Restaurant, 3012 Rapids, Drive, Racine.

RACINE MEGACYCLE CLUB
Second Tuesday, 7:30 p.m., Red Cross Bldg., 4521 Taylor Ave., Racine, WI

RIVERLAND AMATEUR RADIO CLUB
First Tuesday - 7:30 p.m. - Onalaska Community Center, Onalaska WI.

ROCK RIVER RADIO CLUB
First Tuesday - 8:00 p.m. - Dodge County Sheriff's Dep't, 141 N. Main, Juneau WI.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB
Second Tuesday - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB
First Wednesday - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

TRI-COUNTY AMATEUR RADIO CLUB
Meetings are held at 7:00 p.m., the second Sunday of each month at the Trinity Lutheran Church, 314 Barrie, Fort Atkinson, WI.

WASHINGTON COUNTY AMATEUR RADIO CLUB
Second Tuesday: ARES/RACES - 7:30 p.m., club meeting - 8:00 p.m., Town of Polk Town Hall, Hwy. 60 and Scenic Dr. Net on 146.13/73 every Monday 7:30 p.m.

WATERTOWN AMATEUR RADIO CLUB
First Thursday of the month at 7:00 p.m., Eaton Corp., 901 s. 12th St., Watertown, WI

WEST ALLIS RADIO AMATEURS CLUB
Second Tuesday - 8:00 p.m. - St. Francis Savings, 9330 W. Greenfield Ave.

WISCONSIN ASSOCIATION OF REPEATERS
The next meeting of the Wisconsin Association of Repeaters will be held on Saturday, December 10, 1988, at the Countryside Inn, Hwy. 41 and Route 21, Oshkosh. The meeting will begin at 1:00 p.m. with lunch at 12:00 Noon in the restaurant. Repeater licensees, trustees, and sponsors are urged to attend W.A.R. meetings. All interested parties are welcome, as well. The annual meeting

with election of officers and proposed By-Law Changes will be held on the second Saturday in March.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)
First Tuesday - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)
Days rotate: 1988 meeting dates: Thu., Dec. 15. Monday meetings in room 28D of the Baraboo Civic Center; all others in room 25. Meetings start 7:30 p.m.

Let Badger State Smoke Signals know your club's meeting dates, and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other interested in making an interclub visit.



The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

December 3, 1988	Madison, WI
December 3, 1988	Stevens Point, WI
December 7, 1988	Milwaukee, WI (MRAC)
December 10, 1988	Appleton, WI
December 10, 1988	Bloomington, MN
December 17, 1988	Milwaukee, WI (BE)
December 17, 1988	St. Paul, MN
January 14, 1989	Madison, WI
January 14, 1988	Waukesha WI (BE)
January 28, 1989	Watertown, WI
March 18, 1989	Menomonie, WI
June 17, 1989	Menomonie, WI
November 11, 1989	Menomonie, WI
Monthly, First Sat.	Racine, WI
Monthly, Third Sat.	Loves Park, IL

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 25¢ SASE if you request one from the ARRL or BSBS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$4.55 payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

NOTE: Effective January 1, 1989, most VECs will be raising their fee to the maximum FCC allowed fee of \$4.75.

WATERTOWN, WI

January 28, 1989

Conducted by the Watertown & Tri-county ARCs. Time: 9:00 a.m. to 11:00 a.m. Location: Air Watertown, 1714 River Drive, Watertown, WI. Contact: Mark A. Schultz, KE9C, 200 N. 8th St., Watertown, WI 53094. (414) 261-3411

MADISON, WI - (ARRL- VEC)

Saturday, December 3, 1988

Saturday, January 14, 1989

By the FLARC, at 8:00 a.m., Fire Station #2 on Grand Canyon Drive (Madison's west side).

MILWAUKEE RADIO AMATEURS' CLUB - MRAC/VEC

December 7, 1988

Tests are at 7:00 p.m. at Wauwatosa East High School, 74th Street and Milwaukee Avenue. Enter through the south entrance on 74th Street. Please arrive promptly so testing can be completed before 10:00 p.m. Bring your original license and three good photocopies, a pen, and \$4.55 for the exam fee. Walkins accommodated as time permits. Register in advance on a Postal Service 15 cent post card; print the grade of license you are applying for, and your name, address, and telephone number. Send the card to The Milwaukee Radio Amateurs' Club, Inc., 3840 South 43rd Street, #21, Milwaukee, WI 53220.

BADGER EXAMINERS (BE) - MILWAUKEE

Saturday, December 17

Saturday, January 14, 1989, 8:00 a.m.

(WRAC Midwinter Swapfest)

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. at St. Nicholas Parish, 5353 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Number for coin telephone at exam location is 228-9994. Walkins are welcome. Bring your original license, a good photocopy of it, and a second form of identification. Technician license holders must bring proof of having been tested prior to March 21, 1987 to upgrade to General with code test only. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to be tested, your call sign, address and telephone number to Badger Examiners, Mickey Dolgin, KB9G, 507 E. Spooner Rd., Fox Point, WI 53217. (414) 351-5311.

FOX CITIES AMATEUR RADIO CLUB VOLUNTEER EXAMINERS

December 10, 1988 - Roosevelt Junior High School, Appleton, Wis., 9:00 a.m. until noon.

Walkins are always welcome. For more information, contact Larry Siebers, KD9IA, 7077 Weyers Rd., Freedom, WI 54131, or call (414) 788-3823.

STEVENS POINT, Wisconsin

December 3, 1988

By Central Wisconsin Radio Amateurs, Ltd. Contact Joseph W. Larson, N9JW, 644 Portage St., Stevens Point, WI 54481. (715) 344-1182.

MENOMONIE, WI (ARRL/VEC)

Sponsored by the Dunn County ARC. Walk-ins only. Credit Union Office Building, Conference Room, lower level, 444 S. Broadway, Menomonie, WI. Contact: Dr. Thomas W. King, KD9TT, c/o office, 444 S. Broadway, Suite 1, Menomonie, WI 54751. (715) 235-4747 (O), 235-5757 (H).

RHINELANDER, WISCONSIN

All will be held at Nicolet College Science Center in the Fireside Room starting at 9:00 a.m. All sessions held at Nicolet College will be by appointment only. Registration required thirty days in advance of testing session, with check payable to "DeVry VEC" for \$4.55. Only Technician class and above will be given at the testing sessions.

Novice tests will be given by appointment at any time except at regular scheduled testing sessions.

Contact: Leonard Bauman St., K9RMN, 1312 Dorothy St., Rhineland, WI 54501. (715) 369-3296.

RACINE, WISCONSIN - ARRL/VEC

First Saturday of each month except during summer and the Christmas holidays.

Exams are given at the Red Cross Building, 4521 Taylor Ave., Racine, WI. Walkins are permitted.

Send pre-registration to: William R. Firchol, Jr., N9DMP, 1912 27th Street, Kenosha WI 53140.

Third Saturday of every month.

Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban Library on North Second Street in Loves Park, IL. Contact: Gene Melton, AK9N, 2901 Billie Rd., Rockford, IL 61109, (815) 874-6867

MINNESOTA TESTS

December 10 - Bloomington

December 17 - St. Paul

To register for these tests, or for more information, contact as follows:

St. Cloud Amateur Radio Club

Len Carlson at (612) 252-0783

Amateur Radio Association of Bloomington

Art Putt at (612) 881-7181

St. Paul Radio Club, Inc.

Mary Ketzler at (612) 426-4438

Minneapolis Amateur Radio Club

Jeff Kolb at (612) 699-6961.

Minnesota test information courtesy of Marv Mahre, WOMGI.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules.

Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN or K9ZZ at the address shown on page 2.



SSB
SELL SWAP BUY

OUR WANT ADS GET RESULTS

FOR SALE: Kenwood TH-21AT 2-meter HT, extra battery pack and soft case. Contact: Mark A. Schultz, KE9C, 200 N. 8th St., Watertown, WI. (414) 261-3411.

FOR SALE: Alpha Delta, Model DX-A. 40-80-160 meter twin sloper antenna. New. \$40.00 plus shipnt. Bob Hartman, W9RQY, 2113 Eagle Dr., Freeport, IL 61032. Phone, (815) 233-0216 anytime.

Wisconsin Nets Association Ltd.

WISCONSIN NETS

Net	WNA	Freq	UTC	CST	Manager
BWN	Yes	3984	1200	0600	KC9CJ
BEN	Yes	3985	1800	1200	KA9RII
WSBN	Yes	3985	2330	1730	K9ANV
WNN	Yes	3723	2400	1800	KA9TTM
WSSN	Yes	3645	0030	1830	N9BDL
WIN/E	Yes	3662	0100	1900	WB9ICH
WIN/L	Yes	3662	0400	2200	W9NGP
NWTN	Yes	34/94	0030	1830	NS9Q
Gr Bay	No	72/12	0245	2045	WB9NRK
			Thu	Wed	
RACES	No	3993.5	1815	1215	WC9AAG
			USB Tues and Thurs		
RACES	No	3993.5	1400	0800	WA9OAY
			LSB Sunday		

Section Manager's notes

Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

Please get the dates and particulars of your group's hamfests, picnics, dinners and special events planned for 1989 to me immediately, so we can let everyone know what you're doing in Section News in QST, and elsewhere - QST is delivered to over 1,800 Wisconsin amateurs each month.

Fox Cities ARC bought a complete set of ARRL books and several copies of Tune in the World for Roosevelt Junior High School students to use. The FCARC Volunteer Examiner Team has been accepted to stock forms for ARRL tests and exams. Thoughts are to purchase a plaque and update an engraved list to remember the Silent Keys from both the FCARC and the Neenah-Menasha club.

N9GHZ compiled Directory of Taylor County Amateurs.

According to net records kept by K9UTQ: Most active nets during 1988 were WIN/E on 3662 KHz CW at 7:00 p.m. with 1,800 messages (73% cleared), and BWN on 3985 KHz SSB at 6:00 a.m. with 18,700 messages (99.8% cleared).

Green Fox ARC now has 10 members on packet radio. At one of their meetings, members brought along their favorite hand key, bug, electronic keyer, antique collection to show after the meeting. An oscillator was available to test the keys and show their capabilities.

West Allis RAC Midwinter Swapfest January 14th at Waukesha County Exposition Center Forum, Highways J and FT, with Amateur exams by Badger Examiners available, packet radio meeting, and free coffee and donuts before 9 a.m.

The Novice Roundup begins the end of January; help Novices in your town to get on the air and have some fun.

A few Wisconsin clubs are having door prizes of gifts or money to encourage higher attendance.

New OO K1PLR.

New ATC WD9HAS.

Sorry to report Silent Keys KA9UXM, N9GYC, WD9IKS, and W9TQ, who was licensed since 1922. They will all be missed.

TRAFFIC TOPIX

Gene Santoski, K9UTQ
Section Traffic Manager
Wisconsin Section ARRL
1220 18th St. So.
Wisconsin Rapids, WI 54494

Once again we are at that time of year when leaves come down and antennas go up and temperatures and static go down and time on the air and net participation goes up.

Well, with all these ups and downs I will attempt to settle down and cover a few topics that I feel bear mentioning.

First of all, I want to call your attention to the very interesting article in the September QST - Page 83 by KR7L. I think what Brad has to say in this article should be considered seriously. As he states "we are in the middle of a communications revolution." What he is talking about is the evolution and rapid expansion of Packet Radio and its effect on traffic handling as we know it.

He goes on to say that "no matter how much we revere CW as the mode used by 'real traffic handlers,' no matter how much we enjoy SSB TCC schedules, they are rapidly becoming a footnote in the history of Amateur Radio. The national Traffic System may well become an aging dinosaur traveling down the road to ultimate extinction." Anyway, take a look at the article and form your own opinion. Personally, I tend to agree with what he predicts. We shall see!

Another article that I found interesting was the one on page 54 of the October QST - Emergency Communication: Is It Legal? Very worthwhile reading. Take a look at it.

As you can easily guess, I am a BIG believer in the written word as a way of keeping informed of what is going on in the world around us. I feel that all organizations worth their title should produce at least a quarterly newsletter or bulletin if not monthly to keep members and interested persons informed of what that particular group is doing. The publication that you are reading now is an excellent example of the amount of information of all types that can be passed along to its readers.

I always make it a point to put out a periodic bulletin to all members of my Boy Scout Troop to keep them informed as to what is going to happen and what has happened in the Scouting world both with my Troop as well as others in the area. Bulletins and/or newsletters go a long way to keeping people interested in whatever it is they are interested in or belong to. Obviously you agree or you wouldn't be reading Smoke Signals!!

I receive bulletins of all kinds in the mail almost every week - bulletins from organizations and special interest groups with which I am associated. By reading these I am kept abreast of what is happening in my various interest areas.

With regard to amateur radio, particularly traffic handling, I feel that all participants should be kept well informed of the goings on in traffic circles. I think that all Net Managers should put out a newsletter to members of their respective nets from time to time. I did it when I was NM of WSBN years ago and it was well received by all who read it as they were kept informed of what was going on.

It is an excellent way to keep interest alive in a net, encourage members to take a more active part, and also serve as a soft-sell vehicle for training new members and for pointing out areas where operating can be improved.

Of course, it costs money to produce bulletins, and more - much more - to pay the postage. Unfortunately, most of the cost has to be borne by the members of the net because few bulletins of this type have enough circulation to warrant or attract paid advertising to offset production costs.

To make a long story short, I encourage all of you Net Managers to put together some sort of document periodically to keep your net members informed and aware of things.

A fall WNA meeting/picnic was held September 10th near Wisconsin Rapids. The turnout was fairly good and the weather was great! New officers of the WNA elected are WA9W Chairman, KA9KLZ Secretary, and W9CBE as Treasurer. Congratulations to all three and I know that they will do a super job in keeping with the traditions and purpose of the WNA Ltd. Good luck to you all.

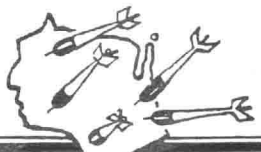
Overall, participation and traffic in the nets is at normal levels for this time of year and increases in both categories are expected as we get into the colder months. If you know of a ham in your area that is not yet into traffic handling, sit down with him/her and explain how it is done and encourage them to check a net.

Top traffic handlers for 1987 were WB9YPY, KC9CJ and KA9RII. Jim, WB9YPY is a first-time recipient of the annual award and Dick, KC9CJ and Lisa, KA9RII received small endorsements to be affixed to their plaques. Congratulations to all of you for a fine job - keep it up.

Congratulations to Stacy Garner, KA9WDE (Harmonic of Greg WA9W) for winning the 1988 Hiram Percy Maxim Award. This is quite an honor and something that I am sure Stacy will treasure forever. She was the second recipient in as many years to receive this award in Wisconsin. Keep up the good work Stacy!

At the meeting, I announced that effective January 1, 1989, I will be stepping down as Section Traffic Manager. Due to various personal commitments (Scouting, photo business, regular job, family activities) I find I no longer have the time available to continue to do the job that I feel I should as STM. Besides, I have been in that position for 10 years now and I feel it is time for a change - time to get some new blood and ideas flowing. I do want to take this opportunity to thank each and every one of you for the fine support you have given me the past 10 years. Without you, I would never have been able to accomplish the things that I have over the years. I hope that you will continue to support whoever is appointed to replace me. You have not seen the last of me though. I will still remain as active in traffic handling as time permits. That aspect of amateur radio has been in my blood since I was first licensed almost 30 years ago and it surely is not going to go away. I will also continue to contribute articles to Badger State Smoke Signals from time to time. Again, thanks for your support.

In closing, I just want to encourage you to stay active in traffic handling as much as you can and get others interested in it too. We are always looking for new calls on our nets.



HERE and THERE

SINCERE CONDOLENCES to Jim Decker, WB9UQT, Baraboo, on the recent death of his mother. Our sympathy also to Jim's sister, Nancy. Jim is treasurer of BSSS, and several other organizations.

:-----:

THANKS to the Wisconsin Association of Repeaters for providing BSSS with the Wisconsin Repeater Directory on pages 13 and 14 of this issue. The directory was provided on disk, so we didn't have to retype it - thank heaven!

:-----:

WE ARE INDEED BLESSED by the excellent work of two cartoonists: Joe Ash, W9ODV, of Sheboygan, WI, and Bob Beasley, K6BJH, of Homeland, California (Bob drew the cartoon on page 11 of this issue). Their works grace our pages regularly, and both possess a most enviable talent - they tell complete stories with (usually) just one simple sketch and a caption. Sometimes, they do use two panels, and sometimes the drawing doesn't even need a caption. Now, that is communication, and it certainly proves that one picture is indeed worth a thousand words. Bob Beasley is interested in your suggestions for cartoons; if you have a cartoon idea, write to Bob at P.O. Box 436, Homeland, CA 92348. I suspect that Joe Ash, W9ODV, would be interested in cartoon ideas, too; Joe's address is 3134 North Avenue, Sheboygan, WI 53081. Bob draws for other publications, too. He is also interested in old cars. Joe drew many of the column headings we use regularly here in *Badger State Smoke Signals*, including the "Here and There" heading above this column. He also drew, among other headings, the one used above editorials, one for "The Test Point", and "Section Manager's Notes". Bob and Joe - thanks for sharing your remarkable talents with all of us.

:-----:

FCC FORM 610-B EXTENDED: The present FCC Form 610-B, the form used to renew or modify existing amateur club station licenses, has been extended through August 31, 1991. This means that, although the forms carry an expiration date of August 31, 1988, they will continue to be valid for another three years. (From *The ARRL Letter*, 10/16/88)

:-----:

A SUBSCRIPTION to *Badger State Smoke Signals* makes a great Christmas gift! Use the blank on this page.

SWAGUR ENTERPRISES

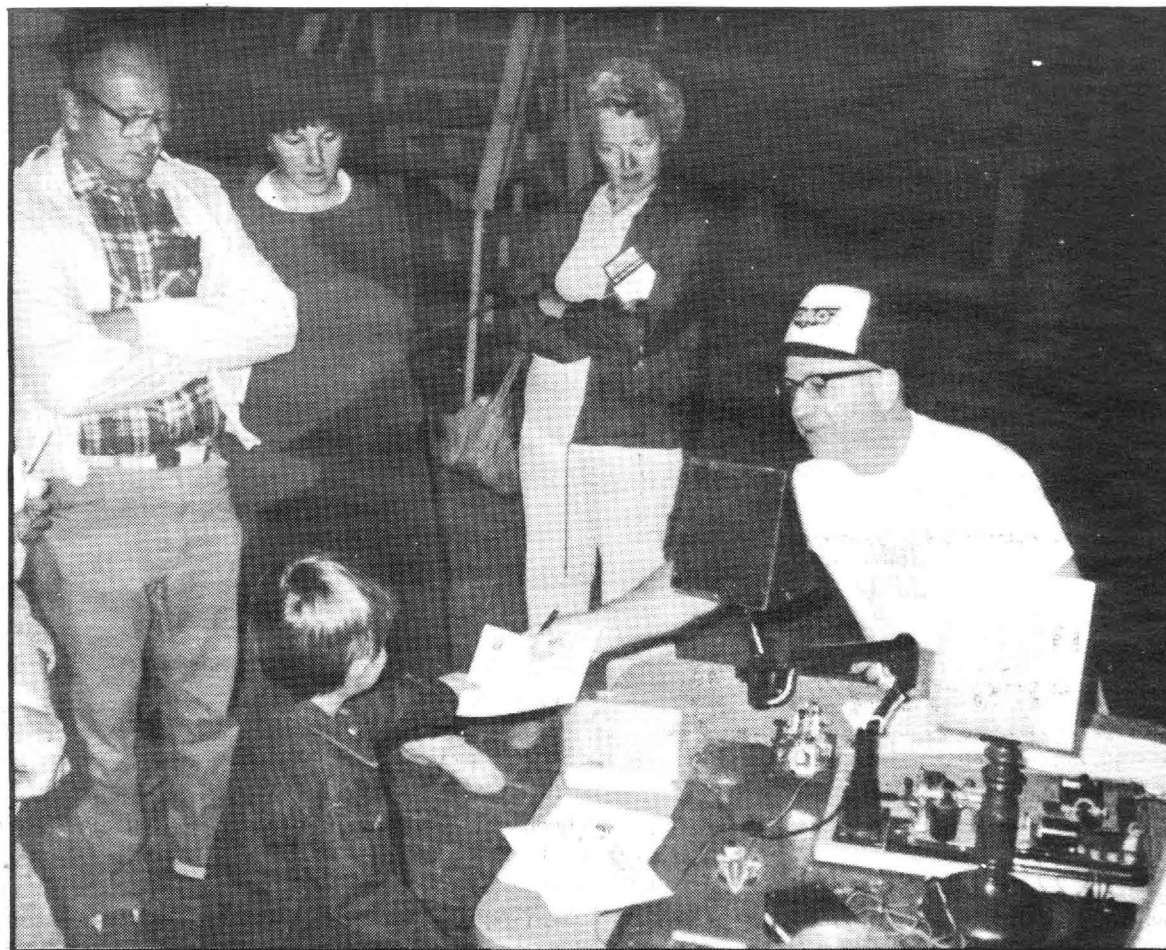
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Digital Communications



BILL DUNBAR, AD9E, Normal, IL, at right, president of the Morse Telegraph Club, hands a happy birthday telegram to a young visitor at the Mid Continent Railroad Museum in North Freedom, WI, as several members of the MTC demonstrated telegraphy during the Labor Day weekend.

Helping do the demo were Sid Vaughn, NØDJD, of Mount Vernon, Iowa, and Bob King, KA9GNY, of Baraboo.

Since wire circuits are not available around the museum grounds, telegraph circuits are set up using two-meter FM. Audio tones are keyed by the telegraphers and fed into the rigs' audio input. The tones are converted into DC at the receiving ends of the circuits to operate the sounders.

Landline telegraphy began more than 50 years before "wireless," and was indeed digital in nature - on and off pulses. Many early radio Amateurs came from the ranks of telegraphers; they used American Morse on the air. Later, a need for a standard radio code when working European ship and shore stations brought adoption of the International code.

There are more than 600 radio amateur members of the Morse Telegraph Club, but the club is not a Ham Radio subgroup; its primary focus is landline telegraph: its invention, equipment and operation. Most MTC members were railroad telegraphers, so the MTC paper, "Dots & Dashes" has a rail flavor. MTC info can be had from A.J. Long, KA9ZPS, 520 W. Schwartz St., Salem, IL 62881.



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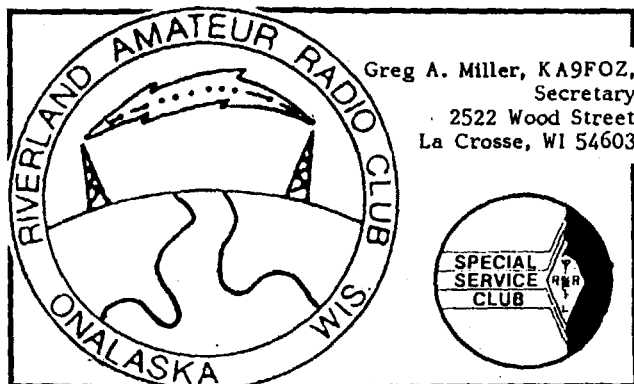
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☐ 1 year ☐ 2 years ☐ 3 years

☐ new ☐ renewal



Greg A. Miller, KA9FOZ,
Secretary
2522 Wood Street
La Crosse, WI 54603

The meeting was called to order at 7:35 p.m. by President Craig Goldbeck. Minutes from the October meeting and the treasurer's report were approved.

The next exam session will be held at the Community Center on Dec. 20 at 7:00 p.m. Anyone wishing to take an exam must make plans with Rick, KV9U.

Explorer Post report: It was reported that the local Boy Scout Office sent out 26 letters to interested kids that might join the post; there was zero attendance at the first meeting, so it was decided that the Post would be dropped.

OLD BUSINESS

Field Day results were given by Craig. It was noted that our club finished 21st out of 270 entries in our class; this was a considerable increase over last year, and once again thanks were given to those who participated and helped out.

Remember that the officers will be looking for your nominations for the "Ham of the Year" award; please submit them to one of the officers by the January meeting.

The ordering of club patches has been taken care of, and they should be available by the end of the year.

It was decided that the Christmas dinner will be held at the New Villa on January 21 at 6:30 p.m. A motion was made and seconded that we put \$100 toward door prizes to be given away at the dinner. The motion was passed. (Please note that the New Villa was not available on January 21 - the new date will be January 14.)

A motion was made by Charlie, KA9-UUK, that the club accept a gift from Charlie of a junction box that would be used for listening to code for exams, and that Dick Low be the custodian of this piece of equipment. The motion was seconded and passed. The club thanks Charlie for his generosity.

NEW BUSINESS

It was suggested that we read off the names of the members in attendance at the meeting from the signup sheet at the door. It was agreed that we would start doing it at the December meeting.

Rick, KV9U, had a list of Riverland Amateurs; if anyone would like to see it, get in touch with him.

It was suggested that all club members in attendance at the meetings start wearing their call sign badges. This was agreed on, and all members are asked to wear

them.

A local Girl Scout troop has requested that we demonstrate Amateur Radio to one of their meetings. A committee was set up to cover this.

There was mention of the amendment to the FCC Authorization Bill, S. 1048.

The Riverland Activity Party was discussed. It was a poor turnout, with the only participant being the winner, who was Curt, KA9YPF.

Mention was made of the Packet Conference and how it was a big success. Many interesting things on packet were learned by all.

Winner of the drawing was Ron, KD9-OY.

The meeting was adjourned at 8:24 p.m.

Total members present was 28.

Respectfully submitted:

Greg Miller, Sec./Treas. RARC

PRESIDENT'S GAVEL

I'd like to thank again all the people involved with our Field Day effort; to move up 10 places in a class as competitive as 3A with just 15 people says a lot about the ones involved. So, how about next year? One of the top three?

Also, a very big thank you to Charlie Burch for donating the code test audio center to the club for testing.

We're glad to hear that Wid Johnson is doing fine and getting back into the swing of things again. We wish him a full and swift recovery.

If at all possible, I urge you to attend the next couple of club meetings because of some important issues facing the club. In December, we have to decide on the club dues for the next year. There is some more to discuss on the use of our money on a new repeater. Also, final plans will be made for the Christmas party.

In January, the club will be electing new officers. This meeting is typically the meeting when all the members run and hide, but this shouldn't be the case. Most people look at some of the work involved in being an officer, and think that is all there is to it, but they fail to look at some of the benefits of doing the jobs: getting to know your members better, seeing your ideas put to use, helping out people, plus others too numerous to mention. So, don't be turned off by some negative ideas that you might have.

Hope to see you at the Christmas party. It will be held on the 14th of January at the New Villa on Ward Avenue in La Crosse. You will be able to order off a limited menu. It will start at 6:30 p.m., and we will be in our own private room downstairs. There will be door prizes. Watch your club section for updates.

73 'til next month

Craig

ADDITIONAL NOTES

The program for the December meeting will be a movie - I will search the local library for another interesting film.

Don't miss the December meeting - we will be conducting a lottery drawing that will be of benefit to the club thruout 1989 - details at the meeting.

MEMBERS PRESENT

George Kroner	KA9HOP
Hugh Barker	KA0EJZ
Rick Williams	KV9U
Karl Olberg	W4ST
John Jorenby	KA9ETH
Craig Goldbeck	N9ETD
Greg Miller	KA9FOZ
Charlie Burch	KA9UUK
Bill Winder	K9EGQ
Herman Ludvik	W9HJV
Walter Altus	WD9GCR
Dick Low	K0JYB
Andy Boomer	N9HBQ
Mike Tessmer	N0BSH
John Kass	WA9IZY
Ralph Jahimiak	WA9OAE
Glenn Whitlock	N0BBW
Dallas Miller	K9LEC
L.F. (Nook) Bentzen	K9EGO
Ron Reed	KD9OY
"Knut" Knutson	W9SFL
Gary Webb	N19V
Al Reinholz	N9FZE
Art Osborn	W0JDC
Ken Weigel	N9CDT
Bill Kleinschmidt	N9FDE
Curt Phelps	KA9YPF
Ernie Gershon	K9ZVU

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Tom Gromacki KB9BIS

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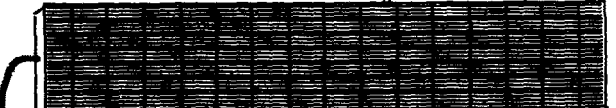
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Got a yen for Ham Radio swap meets? Here's food for thought.

The Last Hamfest

By Richard Steck, W9RS
P.O. Box 642
Lake Forest, IL 60045

The last hamfest is coming. Some of us will have the sad experience of attending it. It will not be much different from a funeral wake. I'm not referring to mammoth hamfests like Dayton. Those will probably last for some time. I'm writing about the hundreds of local fests held across the country. The end of those hamfests is near!

I've attended hamfests for many years. I can remember going to my first hamfest about 25 years ago. After walking the first hundred feet into Santa Fe Park, once home to some of Chicago's best fests, I was hooked. It had to be paradise. I was destined to become another wandering hamfest junkie. I would look forward to each season of Chicago-area hamfests, I would stash my dollars and aging radio junkie for the next fest on the calendar.

Today, hamfests have changed. In fact, hamfests have changed so drastically, that I don't expect hamfests as we knew them to continue for more than a few more years. What are the changes, and what might have caused those changes?

Are there far fewer hams around to attend local hamfests? The statistics wouldn't really support that explanation. Are hams less intensely interested in their hobby? I doubt it. This ham and tens of thousands of others travel to Dayton like some others travel to Mecca. So what's causing most local hamfests to atrophy?

Let's travel back in time and look at the enchantment offered by those early local fests. In those days hamfests consisted of at least a dozen larger commercial dealers with tantalizing tables of new Icom, Kenwood, Drake and Yaesu gear, and endless rows of densely packed, yawning automobile trunks and tables displaying literally tons of used equipment of all ages and in all conditions. That was the simple ingredient for hamfest success—plenty of ham radio equipment. Given that ingredient, nature would take its course and equipment and money would flow freely in all directions. You could sense that people were having fun and nobody left early.

The anatomy of today's hamfest is distinctly different. You might see at most one or two commercial ham radio dealers who justifiably display a bare minimum of new equipment (After all, why should a dealer invest in an inventory of ham gear he doesn't expect to sell, and then travel hundreds of miles to a hamfest where he expects to encounter dwindling attend-

ance?). You will see a sparse number of sellers and less haggling than ever. You will probably see a few determined hams desperately trying to sell something they couldn't get rid of at the last two hamfests. You might also see a motorcycle for sale, army surplus ammo cases, ski boots, plastic flowers, and some double-breasted suits. Great stuff at a flea market, but who wants it at a real hamfest?

What is causing the extinction of the hamfests? I suspect that there is a combination of causes all coming together to snuff out hamfests as we knew them. My guess is that the primary cause is the devaluation of the U.S. Dollar against the Japanese Yen. The dollar converts into less Yen and consequently less Icom HT's, etc. 25 years ago, most of the ham radio manufacturers were American. About 15 years later, it was the superior technology of the Japanese and the strong buying power of the U.S. Dollar that caused first a trickle and then an avalanche of Japanese equipment to squeeze American manufacturers out of the market. As long as the dollar was strong, hams benefitted. When the dollar weakened as it has in recent years, hams lost out.

A natural cascading effect follows devaluation. Far fewer buyers of new ham equipment, especially major pieces like HF transceivers and 2m handi-talkies, causes fewer sellers of used equipment, (for example, 10-year old HF transceivers), which causes fewer buyers and sellers of used equipment, etc., down the line. Today, it's almost impossible to find a five year old 2m transceiver at a hamfest because most hams are justifiably clutching on to whatever they have, dreading the outlay for a new transceiver. A new piece of gear tends to carve out a bigger chunk of one's paycheck than ever before.

The second major cause of hamfest extinction is the increasing appearance of non-ham equipment at the fests, primarily computer equipment. It seems like half the seller tables now feature non-radio items like computer accessories, knitted goods, plastic toys, scuba equipment, or neon beer signs. Finding ham gear amidst the non-ham gear is a real discovery.

Don't get me wrong about computers. I'm writing this on a PC word processor. I love computers—but I despise them at hamfests. Computer sellers and dealers have become so numerous at fests that they are clearly changing hamfests to joint hamfests/computerfests. This has to be a turn-off to a large part of the ham attendance. You don't see ham gear at a computer swapfest, why all the computer crap at hamfests? I can see computer equipment to the extent that it clearly supports ham

radio, e.g., RTTY, packet, logging, etc. But when it reaches the proportions which it has, it becomes a hamfest turn-off.

Other causes of hamfest demise, though minor, might include the longer lifetime of solid-state equipment. Equipment bought during the last ten years lasts longer than equipment bought during the previous ten years. So why pay up big bucks for a few marginally useful new features? Who needs turning signals on a transceiver?

Can hamfests be saved? Maybe. We can't control the exchange rate between the Dollar and the Yen, except for waiting for that pendulum to swing in a more favorable direction, so that avenue is probably out. Even if the Dollar were to appreciate dramatically, I doubt that you would see your friendly dealers rushing to lower their prices on the latest equipment. So what can we do to save the hamfests from extinction?

I'm not entirely certain that we can change the quality of local hamfests, but if I were to make one simple recommendation, it would be the following. You can't change the exchange rate between the Dollar and the Yen, but you can try to improve the quality of local hamfests. Since clubs often derive significant revenue from hamfests, they should face the issue of vanishing hamfests now, before that revenue stream is curtailed, by enforcing a "Radio Only" rule at their next fest. By that I mean if it isn't radio, or radio-related, it is strongly, and I mean strongly, discouraged from the premises. If that seems too harsh, clubs should try to persuade sellers of all non-radio items to exhibit such items in a separate area apart from the radio part of the hamfest. In that way, we can at least tell if the event is mainly a hamfest, a general flea-market, or a computerfest.

If we can accomplish this, I might be spared the indignity of seeing my long-departed Collins 75-S3B on a table in the midst of ski-boots, a bowling ball, old copies of Playboy, jewelry, plumbing supplies, and surgical tools.

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Eau Claire Amateur Radio Club

Bob Fallis, W9BAR,
Secretary
1851 McKinley Road
Eau Claire, WI 54703

The next meeting of the Eau Claire Amateur Radio Club will be held Tuesday evening, December 13th, at 7:30, in the Parks and Recreation Building, 1300 First Avenue.

MINUTES OF THE NOVEMBER MEETING

The meeting was called to order at 7:30 by President Jerry Marx, NG9A. Thirty three members were present. The minutes of the October meeting were read and approved. The financial report was read and approved.

REPORTS

The club will have a Christmas party

again this year. Harry Jensen, W9FYI, has reserved the American Legion Hall on Water Street for the evening of December 17th. Liz, N9EQR, and Corrine, KD9KL, are in charge of the decorating. Don, K9-UXP, and XYL Jane will bring the ham and buns. The club will furnish coffee and soft drinks. Anyone attending is asked to bring a dish to pass. All are urged to attend.

The Board of Directors has been reviewing our dues structure. There has been a separate membership for Novices, and a repeater fee. To simplify bookkeeping and eliminate confusion, it has been decided that there will be a single membership for all. Starting in 1989, the annual dues will be \$15.00.

A motion by John Anderl, KØVMW, that a attendance roster, along with call signs, be included in the published minutes of each meeting was made and seconded. After a brief discussion, the motion was defeated.

The 1989 Hamfest will be held on July 15th.

Don Franzman, W9NFJ, gave us an interesting and informative report on his recent trip to Germany, and his experiences on 2 and 10 meters while he was there.

The slate of candidates for this years' election is as follows:

President: Jerry Marx, NG9A
Steve Hanson, K9ZVZ

Vice-President: Mike McAlister, WD9DLM
Jim Wiskow, KE9BC

Secretary: Carl Searing, W9NW
Bob Fallis, W9BAR

Treasurer: Bill Jablonske, N9NNS
Darold Patrow, N9FLK

Elections will be held at the December meeting.

Steve Hanson, K9ZVZ, is in the process of building a new repeater. The frequency of 144.87/145.47 has been assigned. A few growing pains are expected before it is up and running full power, but it will be an open repeater, and all are encouraged to check it out when they are in the area.

Lunch Committee for December: W9-FYI, W9ZZI, and W9BAR.

Respectfully submitted:

Bob Fallis, W9BAR, Secretary

QCWA Chapter elects officers



OFFICERS AND BOARD OF DIRECTORS, SOUTHEAST WISCONSIN CHAPTER 162, QCWA (left to right): Tony Craig (K9QBJ), Bill Komistra (W9OVZ), both Directors; Ed Konicek (W9NVK), President; Bob Jensen

(WØWLN), Secretary-Treasurer; Steve Bell-graph (K9ZL), Director; Chuck Knotek (W9-GKM), Vice-President; and Ken Johnson (W9BIH), Director.

- Photo via Bob Jensen, WØWLN

Southeast Wisconsin Chapter 162 of the Quarter Century Wireless Association held its annual election October 23, 1988, at the Spinning Wheel Restaurant, 6025 Douglas Avenue, Racine. Directors Ed Konicek, W9NVK, and Chuck Knotek, W9GKM, were re-elected, and Tony Craig, K9QBJ, was elected, all for two-year terms. The new Board of Directors then elected Ed, W9NVK, president, and Chuck, W9GKM, vice-president, and re-elected Bob Jensen, WØWLN, secretary/treasurer for one-year terms.

The election was preceded by a brunch attended by members and XYLS. After the election, the ARRL video tape "The New World of Amateur Radio" was shown, followed by a video tape of a Channel 18 TV show produced by Ed's son.

The chapter welcomes new member Robert Strom, KØVPP, of Kenosha, Wis.

Regular meetings of the chapter are held the third Monday monthly at 7:30 p.m. at the Around the Clock Restaurant, 3012 Rapids Drive, in Racine. Every other month, a social meeting is held. The February meeting is a Valentine party, April is an anniversary party, June is "Show and Tell", August features a picnic, October brings elections, and December has a Christmas party.

- Bob Jensen, WØWLN
5616 Cambridge Lane
Racine, WI 53406



FRANK GUTH, W9BCC, WAS HONORED at a surprise party in October to commemor-

ate his many years of service to Amateur Radio and to many people who he's helped along the way. We're waiting for more information and photos; we'll have the full story then. He lives in Stevens Point.

THE 1989 WISCONSIN QSO PARTY will be

held from 1800Z March 19 'til 0100Z March 20. There's a new 100 point bonus from the sponsoring West Allis Radio Amateur Club if their official entry blank is used, including the blank we'll publish in March '89 BSSS. It's one of the best QSO Parties in the U.S; help spread the word!

John's Junk Box

By John W. Frank, WB9TQG
P. O. Box 5113
Madison, WI 53705

SIMPLE TRICKLE CHARGERS

Last year, I needed a simple trickle charger to keep a storage battery charged during the winter months. After shopping around at several hardware stores and auto parts emporiums, I came to the conclusion that I could homebrew a charger for much less money than a ready-made charger would cost.

Trickle chargers don't have to be high-tech to be functional. The one I use consists of a 12-volt filament transformer, four diodes, and a slow-blow fuse, as shown in figure 1. During the breadboard phase of this project, I used the center tap on the transformer secondary winding to obtain a six-volt output, as shown in fig. 2. However, I didn't use a single pole double throw switch in the final version because I have no six-volt batteries to charge.

As far as the diodes go, you can use a pre-packaged bridge rectifier, or make your own from four diodes. Just make sure the diodes can carry at least one amp. I used four diodes rated for three amps and 50 PIV (peak inverse volts), and they work just fine.

According to my mechanic, lead-acid batteries that aren't being used regularly should be trickle charged once a month to keep them from going flat. Don't forget, batteries give off Hydrogen gas while being charged.

In the interest of safety, here is the procedure I use to charge batteries that have been removed from a vehicle:

1. Unscrew the caps from the cells of the battery.
2. Use a battery hydrometer to determine if the battery needs to be charged.
3. Connect the negative lead from the charger to the negative terminal on the battery.
4. Connect the positive lead from the charger to the positive terminal on the battery. (On lead-acid auto-type batteries, the positive terminal should be indicated by a "+" sign. Also, the positive post is usually larger in diameter than the negative post.)
5. Plug the charger into the AC outlet.
6. Do not charge batteries near flames or sparks. Hydrogen gas is extremely explosive!

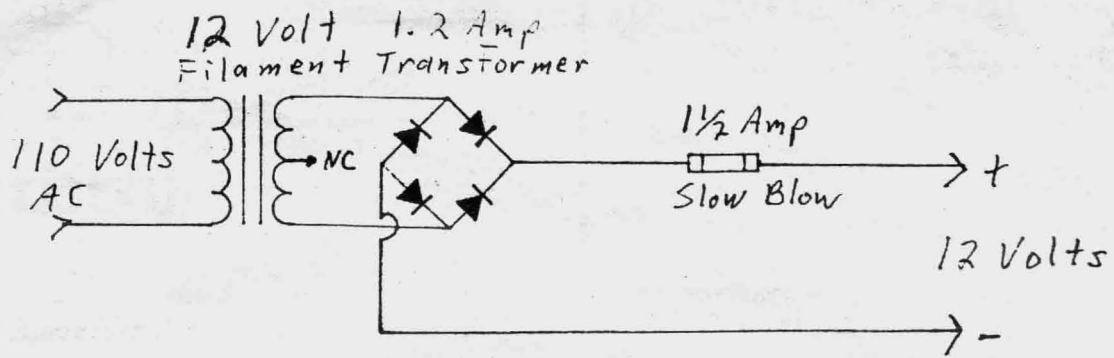


FIGURE 1 — SIMPLEST CHARGER

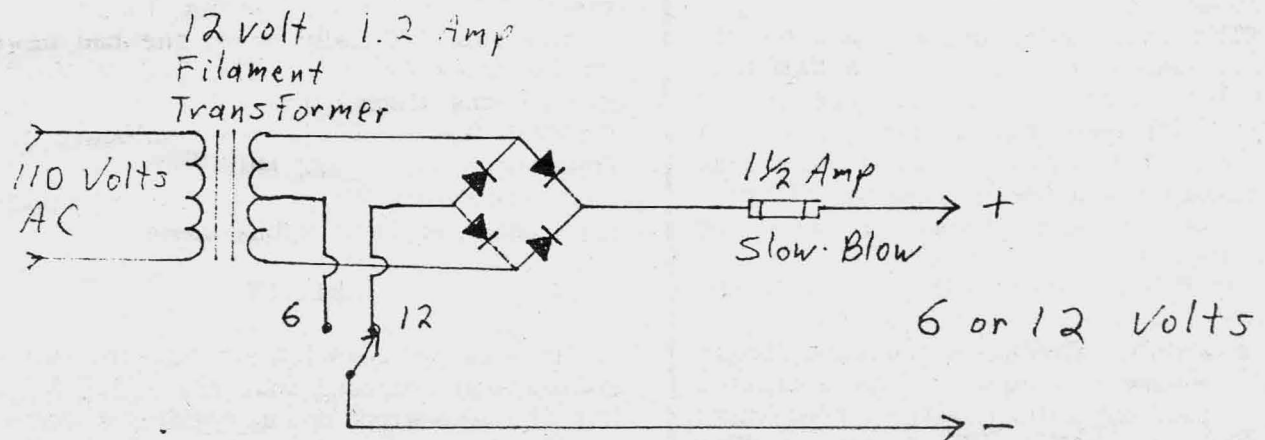


FIGURE 2 — 6 OR 12 VOLT CHARGER

Please do not plug the charger in before connecting it to the battery. If the charger is plugged in before it is connected to the battery, small sparks may result when it is connected to the battery. Storage batteries contain acid, and improper

charging techniques can be hazardous.

73,

John

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ARRL Files Petition for Reconsideration

(Continued from front page)

The League's petition emphasizes that the 220 - 222 MHz band is "the only band available (because of bandwidth, path distance and loading of other bands) for inter-city long distance high speed packet links now developing, and this use is critical to the development of the national packet radio emergency communications network."

"The real issue, unaddressed by the Commission, is the worth to the Nation to have, free of cost to the taxpayer and the public relief agencies, an adequate disaster communications service. What would it cost the taxpayer and the disaster relief agencies to provide an equivalent service if the amateurs did not provide it?"

The FCC wants to use 220 - 222 MHz as an exclusive band for narrow band operations, mainly ACSSB, for the Land Mobile Service. Some amateurs in their comments had pointed out valid questions concerning the spectrum efficiency of ACSSB. The ARRL petition discusses a paper prepared by the National Telecommunications Information Administration (NTIA) in 1987, which "shows that the presumed spectrum efficiency of ACSSB is grossly exaggerated. Even under the best real-world circumstances, ACSSB is no more than 2.5 times as spectrum-efficient as conventional narrow band FM (NBFM). Moreover, merely reducing the deviation of a conventional FM signal can achieve efficiency of 1.8 times." However, "when a large adjacent channel signal protection ratio is required such as in congested environments, the spectrum efficiency of NBFM is commensurate with that of ACSSB." In other words, in densely populated areas (the only areas where there is land mobile congestion) ACSSB is no better than narrowband FM. The League's petition notes that the Commission knew of this report, but failed to mention it in its Order.

The ARRL petition concludes that the FCC Order "is as rife with unsupported assumptions as was the Notice of Proposed Rule Making. The Commission made a spectrum allocation decision against the weight of more than five thousand comments, filed by non-commercial users which cannot bear the burden (or recoup the cost) of the loss of 220 - 222 MHz. The mischaracterization of the amateur uses of the band, and of the possibility of reaccommodation of those uses in other bands or at 222 - 225 MHz, is an error which will stifle the development of both new technology and emergency communications capabilities without any concomitant benefit to the land mobile service."

- From The ARRL Letter,
published by the American Radio
Relay League, Newington CT 06111

220-225 MHz — The Entire Story

President Reagan Signs Bill Lauding Amateurs

How did all this business come to be?
Read on and get the entire story!

RECAP ON 220 MHz

Many months have flown off the calendar and a million words have poured out of the "mill" since the Amateur Radio community first officially heard the bad news on February 12, 1987: The Federal Communications Commission was proposing, in General Docket 87-14, to reallocate the frequencies 220 - 222 MHz from the Amateur, Fixed and Mobile Services, as copri-mary users, to Land Mobile alone.

HISTORY

It was no consolation that the same docket also proposed that 222 - 225 MHz, likewise allocated on a copri-mary basis, was to become exclusively amateur. The entire 220 band had been assigned to amateurs exclusively by the FCC way back in April 1948, responsive to allocations made by the 1947 WARC held in Atlantic City. Exactly ten years later, under an emergency order brought on by the Cold War, the amateur allocation was made secondary to military radiolocation, without advance notice to, nor opportunity for comment from, the public. In 1959, the International Radio Regulations established the Amateur and Radiolocation Services as copri-mary in this hemisphere. In the States, radiolocation continued primary, with amateur secondary; increasingly, though, amateurs were all alone in the band as the military radars were replaced by newer ones on higher bands.

Then, beginning in the 1970s, came a stream of bright ideas about things to put in 220 - 225 MHz or parts thereof, continuing up to the present time: A Class E CB service, cordless telephones, an automated Maritime Mobile Service, a second FM broadcast band, a reading service for the blind, even an interactive TV gadget. In time, amateurs came to refer to all these pet projects as the Sword of Damocles. That amateur use of the band didn't grow as fast as other VHF - UHF bands shouldn't be surprising. What is startling is that - in spite of all these threats - amateur usage did grow! Gradually, more and more amateurs decided to invest part of the family grocery money in 220 MHz. Weak-signal experimentation, control links for repeaters on other bands, repeaters, remote-base stations, and, finally, intercity packet networks with the potential of handling data as fast as technology allows. (An amateur-designed 56-kilobaud radio modem for 220 MHz was on display at the International Telecommunication Union (ITU) Telcom 87

in Geneva).

In 1979, radar's eventual departure was blessed by the World Administrative Radio Conference - their use of the band was primary only by footnote, and only until 1990. In place of Radiolocation, the WARC-79 conferees put Fixed and Mobile alongside Amateur as copri-mary services. The FCC followed suit in December 1983, but qualified the allocation by saying, "There is an FCC/NTIA working group developing an allocation plan for this band." "No assignments will be made to the fixed and mobile services until the allocation and service rules are finalized." Comes February 12, 1987: Surprise, surprise!

AMATEURS STRIKE BACK

All over America, individual amateurs, clubs and the service agencies which rely on Amateur Radio for emergency communications filed comments with the Commission. The time for filing was extended. More comments came in. The time for filing Reply Comments arrived, with a flood of mail; it was extended (after the deadline had already passed!) and more reply comments came in. The ARRL filed massive comments on behalf of its members. And reply comments. And, after the delayed reopening of the reply period, Supplemental Reply Comments containing well-thought-out alternatives for the narrow-band land mobile systems the Commission was endeavoring to promote. Thousands of letters - estimates range between 5,000 and 7,500 - in all poured in to the FCC. All except 15 or so were against the Commission's proposals. Those 15 were from companies which make or plan to make amplitude-compandored single sideband (ACSSB) gear for land mobile, and from land mobile trade associations. Not one, up through the closing date in August 1987, was from a potential user of the technology!

The League's Washington team called on FCC Commissioners, Bureau Chiefs, the Commission's Chief Engineer and his staff. Explaining. Explaining. Explaining. The team called on the National Telecommunications and Information Agency (NTIA), which shares responsibility for allocations and spectrum policy with the Commission. Explaining. Explaining. Explaining. The NTIA supported the Commission; the Commission remained unbending.

BRING ON CONGRESS

By late spring, it was clear to the League's Washington team - volunteer offi-

(Please turn to page 13)

QRU?

"QRU?" means "Do you have anything for me?" But make that, for the purpose of this article, "Do you have anything for Badger State Smoke Signals?" For those who may be wondering - and we hope there are some - here is the poop about articles, pictures, and other items we publish - or would like to publish - here in these hallowed pages. Please pay attention to WHERE items should be sent; it will help prevent errors, and more important, it will help prevent omissions!

SWAPFESTS AND OTHER SOCIAL EVENTS: Send these items to Ken Ebner, K9EN. His address is on page 2 of every issue; it is also at the end of this column.

CLUB MEETINGS: These also go to K9EN. PLEASE be sure the information is COMPLETE! Look at that column in this issue; you'll see some have full information, while others may as well not be listed at all.

THE TEST POINT: These go to K9EN. And again, please be sure the information you send to Ken is COMPLETE. Volunteer examiner groups are required to publicize examination sessions, and, while simply announcing them on the local repeater may satisfy the letter of that requirement, it probably does not satisfy the intent! And, of course, a local announcement is of no value whatever to someone from outside a team's area who might want to take his/her test with that team.

We would like to publish examination session information and schedules from other areas, too, including Minnesota, northern and central Illinois, Iowa, and Upper Michigan.

After your team runs an exam session, why not send us the results - only those candidates who were successful, of course! Successful examinees are indeed news - good news!

WISCONSIN NETS ASSOCIATION, LTD.: This information goes to Jim Romelfanger, K9ZZ; his address is on page 2 of every issue, and it is also at the end of this column. NOTE: K9ZZ types this information in and saves it on disk for transfer to K9EN. Ken does the actual typesetting for the WNA column. If the material you have for the WNA section is on disk, you should send it to K9EN.

THE WISCONSIN PACKETEER: These should be sent to Steve Loeffler, WB9ZRE, Editor, 123 West Oshkosh St., Ripon, WI 54971.

FEATURE ARTICLES: These should be sent to K9ZZ.

PICTURES: These go to K9ZZ. We can use either color or black and white photos, but they MUST be good quality (taken with proper lighting and well-focused). Pictures are normally not returned.

LETTERS TO THE EDITOR: These go to K9ZZ.

WANT ADS (Sell, Swap, Buy): Want ads are published at no charge, and should be sent to K9EN.

HAMFEST ADS: While it's probably true that hamfest/swapfest date conflicts

will never be eliminated, the frequency of such conflicts might well be lessened if they are advertised on our back page. These ads run a full year, which keeps dates publicized well in advance of the events. Badger State Smoke Signals offers two special ad deals to clubs sponsoring these events. They are:

(1) A club may run a card ad on the back page (like the four on that page in this issue) for just \$48.00 per year. Under this plan, we will publish at NO additional charge, a large display ad a month or two before the date of the event. The display ad is usually a copy of your Hamfest flyer, reduced to two columns wide.

We expect to have a few spots available on the back page at the end of this year. Remember, though, that since advertisers usually take ads on that page for a year, once the spaces are full, there may not be spaces available on the back page until January, 1990.

(2) We also offer display ads at special rates to clubs sponsoring these events. Display ads may be run for \$25.00 for one insertion, or \$48.00 for two runs. In both cases, we reduce a copy of your swapfest flyer to make it a two-column display ad.

Of course, these special rates are available to any sponsoring club or group, not just in Wisconsin, but anywhere.

PLEASE REMEMBER: Do not send an item or items to K9EN and include an item or items for Ken to pass to me, and please do not do the reverse, either. Ken and I don't have much opportunity to get together, and mixing items for both of us in one envelope will likely get some items misplaced or just plain lost. Please follow these simple rules:

(1) If it's for K9EN, send it to K9EN.

(2) If it's for K9ZZ, send it to K9ZZ.

DISK FILES: Ken can accept ASCII files by modem (300 or 1200 baud) or on 5 1/4" disk. He can read many DOS formats, either single or double sided, and can also read 8" CP/M ASCII files. He can accept ASCII text files by modem at either 300 or 1200 baud.

I can accept ASCII disk files written in LDOS, TRSDOS, CP/M, or MS-DOS for-

mats. The disks must be 5 1/4", single sided ONLY. I can also accept ASCII text files by modem at 300 baud only. Arrangements must be made in advance for files to be transferred by modem to either Ken or myself.

Taking files this way gives us an advantage: the articles do not have to be retyped; that saves us time. If you have the capability to send us articles this way, please do so. It is very much appreciated.

Here are the pertinent addresses and telephone numbers:

Ken Ebner, K9EN
822 Wauona Trail
Portage, WI 53901
(608) 742-3560

Jim Romelfanger, K9ZZ
412 1/2 Ash Street
Baraboo, WI 53913
(608) 356-4249

A REMINDER: BSSS offers several special arrangements for clubs who participate; these arrangements include special rates for this paper. The Club Deal is not necessarily restricted to Wisconsin clubs, either. For full information, write or call K9EN or myself.

Remember, articles, ads, photos, and whatever, for BSSS are not necessarily restricted to Wisconsin Amateur Radio activities; news or whatever from elsewhere is most welcome. Remember, too, that we usually do not acknowledge receipt of articles; if you don't get it back, it probably got here.

The deadline for items to be received is the first of the month, if they are to be in the next month's issue. For example, to be included in the January 1989 issue, items must be received on or before December 1, 1988. The ONLY exception to this deadline is for participating clubs.

QRU?

- Jim Romelfanger, K9ZZ
Editor



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IF YOU SMELL SOMETHING BURNING,
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SOMETHING IN YOUR OLD RADIO ROOM

K9KM Wins Again

Howard S. Huntington, K9KM, Lake Zurich, IL, has been re-elected Vice-Director of the Central Division of the American Radio Relay League, defeating challenger Kenneth A. Ebner, K9EN, Portage, WI. Howie received 3117 votes, while Ken tallied 1217. Incumbent Director Ed Metzger, W9PRN, Springfield, IL, was unopposed, and declared re-elected. Their terms of office run 2 years, 1989-1990.

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Ready to Use	Tough	Full Legal Power
Fastest Install	Flexible	No Lossy Traps
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WISCONSIN CHAPTER 55

Roy A. Pedersen, K9FHI, Secretary
510 Park Street
Juneau, Wisconsin 53039

On Saturday, October 1st, and in spite of the rainy Fall morning, 112 members, spouses and guests gathered at the Oakwood Inn in Waupaca, WI, for the chapter's annual dinner meeting. Preceding dinner, Barb Regent, N9DIJ, our treasurer's wife, gave the invocation. The family style meal of swiss steak and chicken, and the rest that goes with it (including a delicious cheese cake with cherry topping), was a big hit with the group. (NOTE: The writer enjoyed a second helping of dessert through the courtesy of Ernie, W0LUY).

In the absence of Chairman La Blonde (W9FZC), Vice-Chairman Fergie (W9IEM) presided over the meeting. A moment of silence was observed for our recent Silent Key, Marcus Kronauer, W8ECK. Also, our thoughts are with those members or wives in nursing homes, hospitals, or recovering from recent surgery or illness.

Officially welcomed into the chapter were the following new members:

Millard Christianson, KD9QP
Robert Lade, W9UCR
Richard Lust, K9APW
John Meyer, NZ9Z
Michel Roy, K9GU
Dennis Rybick, K9LGU
Warren Schall, K9IZV

Chapter certificates were presented to KD9QP and K9GU.

Next, members were asked to introduce guests accompanying them.

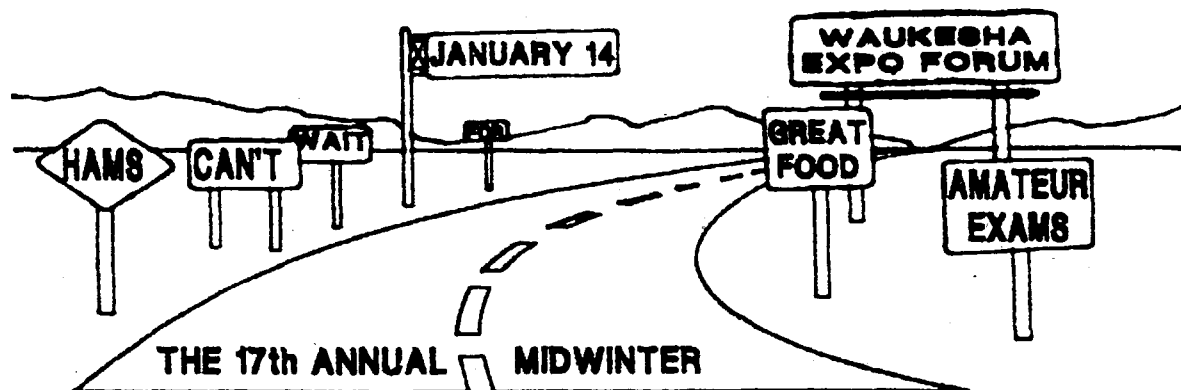
A.R.R.L. Section Manager Rich Regent (K9GDF), our treasurer, presented Fred Linn (W9NZF), with a plaque for 50 years of continuous membership in A.R.R.L. Next, Fred reported on the Linns' attendance at the recent Antique Wireless Association Convention in Canandaigua, New York. He also had 3 antique radios on display at our meeting.

Grace Peterson, wife of the secretary, received from him a well-deserved thank you and a round of applause from the group for all the hand lettering on chapter certificates and typing done the past six years.

Following the drawings for door prizes, the ladies departed for a tour of the Red Mill Colonial Shop or the new Best Western Motel and Convention Center.

(Please turn to page 15)

ALL ROADS LEAD TO



SWAPFEST

Sponsored By The West Allis Radio Amateur Club, Inc.

SATURDAY, JANUARY 14, 1989

8:00 AM - 3:00 PM

WAUKESHA CO. EXPOSITION CENTER FORUM

HIGHWAYS J & FT

WAUKESHA, WISCONSIN

- **ADMISSION: \$2.00 Advance \$3.00 At Door**
- **RESERVED TABLES: \$3.00 (4 Ft.) At Door \$4.00 (As Available)**
- **ELECTRICAL OUTLET: \$5.00 (If Available)**
- **FREE COFFEE AND DONUTS Until 9:00 AM**
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- **AMATEUR EXAMS Administered by Badger Examiners**
(Admission Ticket NOT Required For Entrance To Exams)
- **PACKET RADIO MEETING**
- **RESERVATION DEADLINE January 2, 1989**

- _____ Admission Tickets at \$2.00 Each.
- _____ Table Reservations at \$3.00/4 Feet.
- _____ Amateur Exam Information.
- _____ Electrical Outlet \$5 (If available).

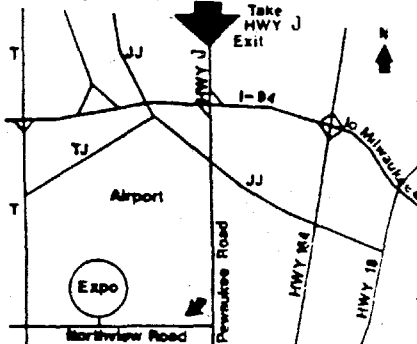
NAME _____

STREET _____

CITY _____ STATE _____ ZIP _____

Mail with S.A.S.E to:
WARAC SWAPFEST
P.O. BOX 1072
MILWAUKEE, WISCONSIN 53201

Waukesha Exposition Center
N1 W24848 Northview Road



President Reagan Signs Bill Lauding Amateurs

(Continued from page 10)

cers, staff, counsel - that amateurs needed to go past the Commission, to the body which had created it, which oversees and funds it: the Congress. A consulting firm which spends all its time working with and for associations needing to reach the Legislative Branch came on board to furnish their expertise in dealing with Senators, Representatives, and their committees and staffs. Spontaneous letters from individual amateurs had begun arriving on Capitol Hill at the same time as their formal comments were sent to the Commission. Our consultants built a Congressional letters-to-Chairman Patrick campaign on this grassroots sentiment. Through the fall and winter we visited more than a hundred offices on Capitol Hill, concentrating on Senators and Representatives whose committee assignments or interests marked them as potential allies. Mail from home gets attention on Capitol Hill, and many of the Congressmen were willing to express their constituents' outrage to Chairman Patrick by letter (or in at least one case, a direct phone call).

BILLS IN THE HOPPER

When the Commission added further outrage to injury by adding to the Docket the Comments of the United Parcel Service six months after the close of public participation - for the first time providing a "customer" for ACSSB - it came time to seek legislation. On June 14, Representative Robert K. Dornan, R-CA 38, introduced House Concurrent Resolution 317 (HConRes 317) which lauded the work of amateurs in providing communications for all sorts of disasters and then went on to express the sense of the Congress that it supports amateurs and that government agencies should take their needs into account when making decisions affecting the Amateur Service. On June 28, a similar resolution was introduced into the Senate by Senator Pete Wilson, R-CA, known as SConRes 127. (By the time Congress went home October 21, 1988, there were 107 cosponsors in the House and 52 in the Senate joining Mr. Dornan and Senator Wilson. Again, the Washington team worked closely with amateur volunteers all across the country to see that this happened.)

BLACK THURSDAY

August 4 arrived, and it became known that the first big battle had been lost. The Commission went ahead with reallocation of 220 - 222 MHz just as they had proposed a year and a half earlier. Special inserts in September QST got the word out to the ARRL's members. The four leaders on communications matters on Capitol Hill, Senators Hollings and Inouye, Representatives Dingell and Markey, in particular, should be asked to help. Legislation was proposed to turn back the clock. Congress was asked to adopt a measure which would require the FCC to enforce the allocations and rules for 220 - 222 MHz which were in force on August 3. Unfortunately, in the time available to us, we were unable to overcome the Congress's innate reluctance to get involved directly in allocating spectrum. This proposed legislation did not pass in the 100th Congress.

The leadership also should be asked, QST said, to secure passage of the concurrent resolutions. This second initiative fared much better! In the closing days of Congress, after consultation with the appropriate committees of both Houses, Senator Wilson reoffered his Resolution as an amendment, new Section 10 of S.1048. Section 10 starts with several paragraphs of "findings" explaining the good work amateurs do, and then finishes:

"(b) It is the sense of the Congress that -

"(1) it strongly encourages and supports the Amateur Radio Service and its emergency communications efforts; and

"(2) Government agencies shall take into account the valuable Contributions made by amateur radio operators when considering actions affecting the Amateur Radio Service."

The amendment was accepted, the bill was agreed to in the Senate, the House concurred on October 19. The President signed it on November 3: Our Section 10, with the rest of S.1048, is now Public Law!

(Please turn to page 14)

WISCONSIN REPEATER DIRECTORY

The WISCONSIN ASSOCIATION OF REPEATERS is an organization of trustees and representatives of repeaters, state-wide, whose goal is mutual cooperation on the VHF/UHF spectrum, in the spirit of Amateur Radio.

GENERAL FREQUENCY COORDINATION POLICIES

1. We attempt to place no two repeaters on the same pair closer than 120 miles.
2. We attempt to place no repeater on a 15 kHz split pair closer than 30 miles to any adjacent 30 kHz standard spacing machine.
3. We not only assist proposed repeaters in finding a frequency where possible, but we actively attempt to protect existing repeaters' frequencies from interference whenever possible.
4. W.A.R. has suggested band plans for most of the FM spectrum, a subaudible tone plan for the State of Wisconsin and all necessary information for coordination of new or modifications to existing repeaters. Contact the Frequency Coordinator.

Nels Harvey, WA9J0B
Wisconsin Association of Repeaters
P.O. Box 23928, Milwaukee, WI 53223

O	Carrier Access	B	Burst
PL	Sub-Audible Continuous Tone	T	Touch-Tone
W	Whistle	C	Closed Private Repeater
A	Autopatch	(CA)	Closed Private Autopatch
E	Emergency Power	L	Link and/or Crossband
P	Portable	R	RACES Affiliated
Z	Autopatch to Law Enforcement	PAC	Packet Data Exchange
		Y	RTTY/ASCII

Wisconsin Sub-Audible Tone Plan By Region

North Central - 2A	North East - 1B	North West - 2Z
South Central - 3Z	South East - 3A	South West - 3B

Location	Rq	Input	Output	Call	Access	Sponsor
ALLENTON WI	SE	146.175	146.775	KA9HLP/R	O PL	HELPCOM LTD.
ALMOND WI	NC	144.810	145.410	KB9QL/R	C	ALMOND RPTR CLUB
APPLETON WI	NE	144.550	145.150	K9DHR/R	O CA E Z	CO. LINE RPT GROUP
APPLETON WI	NE	144.610	145.210	KB9IE/R	O PL	PRES GRANT RP ASSOC
APPLETON WI	NE	146.160	146.760	K9QQQ/R	O	FOX VALLEY VHF ASSOC
APPLETON WI	NE	222.900	224.500	KB9IE/R	O A L	KB9IE
APPLETON WI	NE	448.025	443.025	WB9IYV/R	CLOSED	WB9IYV
APPLETON WI	NE	448.650	443.650	W9DKY/R	O	W9DKY
BALDWIN WI	NW	144.530	145.130	K9HQC/R	O Z	ST. CROIX CTY. CD
BALDWIN WI	NW	147.930	147.330	K9HQC/R	O	ST. CROIX VAL. R.A.
BARABOO WI	SC	146.280	146.880	WA9WVE/R	O E	CENTRAL WIS RP ASSOC
BAYFIELD WI	NW	146.010	146.610	W9NSS/R	O	NORTHLAND ARC
BEAVER DAM WI	SC	147.915	147.315	N9GGZ/R	O	N9GGZ
BELOIT WI	SC	146.070	146.670	WA9JTX/R	O	BELOIT ARC
BELOIT WI	SC	222.700	224.300	WB9UBM/R	O A Z	C.B.S. RPTR GRP.
BERLIN WI	SC	448.850	443.850	N9A0Z/R	O A	N9A0Z
BURLINGTON WI	SE	146.145	146.745	WD9IGV/R	O PL	HONEY LAKE HAMS R.G.
BURLINGTON WI	SE	222.460	224.060	N9BBQ/R	O PL A E	SE WIS E R S
BUTTERNUT WI	NW	439.250	421.230	N9BXA/R	O VIDEO	N9BXA
CHIPPEWA FALLS	NW	146.280	146.880	WA9PAM/R	O	WA9PAM
CHIPPEWA FALLS	NW	449.350	444.350	WA9PAM/R	O O Z	WA9PAM
DELAFIELD WI	SE	146.220	146.820	W9DOW/R	O A E	SEWFARS
DELAFIELD WI	SE	449.125	444.125	W9DHI/R	O E PL 2A	SEWFARS
DEPERE WI	NE	448.750	443.750	KE9LZ/R	O	N9EPC
DORCHESTER WI	NC	144.670	145.270	WA9ZCO/R	OAE Z	WA9ZCO-N9GHZ
EAGLE RIVER WI	NC	144.790	145.390	KD9PT/R	O E	KD9PT
EAU CLAIRE WI	NW	146.310	146.910	K9UXP/R	O A E	EAU CLAIRE ARC
EAU CLAIRE WI	NW	147.840	147.240	KA9ELD/R	O	EAU CLAIRE ARC
ELKHORN WI	SE	146.265	146.865	WA9AJW/R	O	WALWORTH CO. ARS
FALL CREEK WI	NW	144.870	145.470	K9ZVZ/R	O	K9ZVZ
FOND DU LAC WI	NE	147.690	147.090	WD9ESH/R	O A E	FOND DU LAC ARC
FOND DU LAC WI	NE	222.140	223.740	WA4COY/R	O B A	WA4COY
FOND DU LAC WI	NE	449.150	444.150	WA4COY/R	O B A	WA4COY
FORT ATKINSON	SC	222.820	224.420	N9DTV/R	C	N9DTV
FRANKLIN WI	SE	52.030	53.030	WB9TRO/R	O E	WIS EXP RADIO ASSOC
FRANKLIN WI	SE	449.325	444.325	N9CFG/R	O	WIS EXP RADIO ASSOC
FRANKLIN WI	SE	449.625	444.625	K9WQG/R	PL 2A	K9WQG
FREEDOM WI	NE	222.620	224.220	AA9A/R	O	AA9A
FREMONT WI	NC	147.615	147.015	N9AOT/R	O	N9AOT
GERMANTOWN WI	SE	147.645	147.045	WB9EFP/R	C	WB9EFP-WB9CSK-WB9UVT
GRAFTON WI	SE	144.790	145.390	W9HRQ/R	O A	W9HRQ
GRAFTON WI	SE	147.765	147.165	N9APC/R	O	N9APC
GREEN BAY WI	NE	147.720	147.120	K9GB/R	O B PL	NE WIS VHF SOCIETY
GREEN BAY WI	NE	147.960	147.360	K9GB/R	O A PL	GREEN BAY MIKE & KEY
GREEN BAY WI	NE	222.340	223.940	WA9SXN/R	C	WA9SXN
GREEN BAY WI	NE	222.540	224.140	KZ90/R	O	KZ90
GREEN BAY WI	NE	449.200	444.200	WB9VJV/A	C	WB9VJV
GREEN LAKE WI	SC	146.355	146.955	KB9WC/R	O	GREEN LAKE CO. ARC
GREENDALE WI	SE	447.975	442.975	KD9Y/R	O	KD9Y
GREENFIELD WI	SE	53.880	52.880	WB9WKR/R	O	GREENFIELD 6'RS
GREENFIELD WI	SE	222.400	224.000	N9ADQ/R	O A	N9ADQ
HAYWARD WI	NW	147.810	147.210	W9DLY/R	O	WILD RIVERS ARC
HAYWARD WI	NW	449.850	444.850	N9EGE/R	O Z	N9EGE
HELENSVILLE WI	SC	448.825	443.825	N9FIB/R	O	N9FIB
HERTEL WI	NW	147.900	147.300	WB9RAY/R	O	WB9RAY
HERTEL WI	NW	222.900	224.500	WB9RAY/R	O A	WB9RAY
HERTEL WI	NW	448.500	443.500	WB9RAY/R	O A	WB9RAY
HILLSBORO WI	SW	144.770	145.370	WB9SBD/R	O	WB9SBD
HIXTON WI	SW	146.340	146.940	KC9YE/R	O	TREMP-JACKSON CTY RA
IRMA WI	NC	146.130	146.730	K9GTQ/R	O	K9GTQ
JANESVILLE WI	SC	144.050	145.450	WD9ACY/R	O A E	ROCK AMA TELE SYSTEM
JEFFERSON WI	SC	144.890	145.490	W9MQB/R	O	TRI-COUNTY ARC
JUNEAU WI	SC	146.040	146.640	W9TCH/R	O A E Z	ROCK RIVER RC
KAUKAUNA WI	NE	449.450	444.450	ND9Z/R	O	ND9Z
KENOSHA WI	SE	223.200	224.800	WB9LST/R	O Z	WB9LST
KENOSHA/RACINE	SE	147.675	147.075	WA9YTH/R	O A E	WA9YTH
LA CROSSE WI	SW	144.630	145.230	N9ETD/R	O	FAROUT ARC
LA CROSSE WI	SW	146.160	146.760	K9CUT/R	O	LA CROSSE RP ASSOC
LA CROSSE WI	SW	147.810	147.210	N9BRA/R	O A	N9BRA
LA VALLE WI	SC	447.400	442.400	W9EBF/R	O PL	W9EBF
LAC DU FLAMBEAU	NC	146.070	146.670	N9ADA/R	O PL	N9ADA
LODI WI	SC	147.825	147.225	K9EY/R	O E	K9EY
MADISON WI	SC	146.085	146.685	W9YT/R	O PL A	UW-BADGER ARS
MADISON WI	SC	146.160	146.760	WB9AER/R	O B A E	MADISON AREA RP ASSN
MADISON WI	SC	146.340	146.940	W9FZC/R	O E	CENTRAL WIS RP ASSN
MADISON WI	SC	147.750	147.150	WB9AER/R	O B A E	MADISON AREA RP ASSN
MADISON WI	SC	222.220	223.820	WB9RSQ/R	O A	WB9RSQ
MADISON WI	SC	448.675	443.675	KD9UU/R	O PL A Z	KD9UU
MADISON WI	SC	449.000	444.000	KA9VDU/R	O E PL 3Z	KA9VDU
MADISON WI	SC	449.500	444.500	WB9TAE/R	O	WB9TAE
MADISON WI	SC	449.775	444.775	NG9V/R	O PL	NG9V
MADISON WI	SC	144.590	145.190	WB9MFB/R	O	WB9MFB-WB9DQD
MANITOWOC WI	NE	146.010	146.610	W9DK/R	O A E	MANICORAD RP ASSOC
MANITOWOC WI	NE	147.630	147.030	WB9ESM/R	O A K	WB9ESM
MANITOWOC WI	NE	222.940	224.540	N9GHE/R	O	N9GHE
MANITOWOC WI	NE	448.975	443.975	N9GHE/R	O	N9GHE

MARKESAN WI	SC	449.400	444.400	KB9WC/R	O	KB9WC
MARSHFIELD WI	NC	147.780	147.180	WD91SN/R	OAE Z	MARSHFIELD ARS
MAUSTON WI	SC	146.250	146.850	W9EJD/R	O	ARC OF CENTRAL WIS.
MEDFORD WI	NC	147.750	147.150	W9QHI/R	O E P	TAYLOR CTY AREA ARC
MENASHA WI	NE	144.730	145.330	WB9ANR/R	O PL	PRES GRANT RP ASSOC
MENOMONIE WI	NW	146.010	146.610	W9WDK/R	O	RED CEDAR RP ASSOC
MEQUON WI	SE	448.225	443.225	WD9DHI/R	O PL2A E	WIS EXP RADIO ASSOC
MILTON WI	SC	146.115	146.715	WD9FKW/R	O A	WD9FKW
MILWAUKEE WI	SE	29.520	29.620	WB9ZRB/R	O	IND RP SYS
MILWAUKEE WI	SE	29.580	29.680	N9BBG/R	O	WIS EXP RADIO ASSOC
MILWAUKEE WI	SE	52.080	52.680	WB9ZRB/R	O	IND RP SYS
MILWAUKEE WI	SE	144.530	145.130	N9EGR/R	O PL A E Z	MILWAUKEE AREA ARS
MILWAUKEE WI	SE	144.570	145.170	W9FK/R	O Z	WEST ALLIS R A C
MILWAUKEE WI	SE	144.650	145.250	WB9JBF/R	O	WB9JBF
MILWAUKEE WI	SE	146.025	146.625	WB9ZRB/R	O	WB9ZRB
MILWAUKEE WI	SE	146.070	146.670	W9WK/R	Z	ARES
MILWAUKEE WI	SE	146.190	146.790	W9HHX/R	O A PL	MSOE ARC
MILWAUKEE WI	SE	146.250	146.850	W9KHO/R	O PL3A CA	MILW CO RP SOCIETY
MILWAUKEE WI	SE	146.310	146.910	WA9JOB/R	O E Z PL3A	MILWAUKEE RPTR CLUB
MILWAUKEE WI	SE	147.600	147.000	W9PY/R	C	W9PY
MILWAUKEE WI	SE	147.105	147.705	K9IFF/R	C	K9IFF
MILWAUKEE WI	SE	147.930	147.330	N9EDL/R	O PL2A	N9EDL
MILWAUKEE WI	SE	222.260	223.860	WB9UOS/R	O A E	WB9UOS
MILWAUKEE WI	SE	223.080	224.680	WB9ABR/R	O	WB9ABR
MILWAUKEE WI	SE	223.120	224.720	W9KHO/R	O CA PL2A	MILW CO REPT SOC
MILWAUKEE WI	SE	223.300	224.900	NK9G/R	O CA E	NK9G
MILWAUKEE WI	SE	223.360	224.960	WB9TYT/R	O CA PL2A	WB9TYT
MILWAUKEE WI	SE	447.850	442.850	WA0POD/R	O PL A	WA0POD
MILWAUKEE WI	SE	448.150	443.150	W9KHO/R	O PL2A	MILW CO RP SOCIETY
MILWAUKEE WI	SE	448.300	443.300	WB9TYT/R	PL2A	WB9TYT
MILWAUKEE WI	SE	448.375	443.375	K9UJZ/R	O	K9UJZ
MILWAUKEE WI	SE	448.550	443.550	K9HXA/A	C	K9HXA
MILWAUKEE WI	SE	448.700	443.700	WA9HUX/R	O	E.K.A.R.C.
MILWAUKEE WI	SE	448.750	443.750	WA9POV/R	PL2A	MILW UHF SOCIETY
MILWAUKEE WI	SE	448.800	443.800	N9GMT/R	OAEZ PL2A	N9GMT
MILWAUKEE WI	SE	449.200	444.200	K9HXA/A	C	K9HXA
MILWAUKEE WI	SE	449.250	444.250	N9DII/R	O PL	N9DII
MILWAUKEE WI	SE	449.300	444.300	W9WK/A	O PL	MILWAUKEE CO ARES
MILWAUKEE WI	SE	449.800	444.800	K9HXA/A	C	K9HXA
MILWAUKEE WI	SE	449.950	444.950	N9EDL/R	O	N9EDL
MONROE WI	SC	144.510	145.110	NR9W/R	O	GREEN COUNTY ARA
NEW BERLIN WI	SE	147.885	147.285	W9EBF/R	O PL	W9EBF
NEW BERLIN WI	SE	447.400	442.400	W9EBF/R	O PL	W9EBF
NEW BERLIN WI	SE	449.500	444.500	WA9AOL/R	O	WA9AOL
NEW BERLIN WI	SE	449.850	444.850	WB9TRO/R	O PL A E L	WIS EXP RADIO ASSOC
NEW BERLIN WI	SE	449.875	444.875	WB9TRO/R	O	WIS EXP RADIO ASSOC
NEW HULSTEIN WI	NE	147.900	147.300	K9LGR/R	O A E Z	C.A.R.E.S.
NEW LONDON WI	NE	146.625	146.025	WB9ICH/R	O	WB9ICH
NORTH FREEDOM	SE	223.080	224.680	KA9HKL/R	O	KA9HKL
ONALASKA WI	SW	223.380	224.980	WD9GCR/R	O	WD9GCR
OREGON WI	SC	449.925	444.925	WB9QU/R	O	WB9QU
OSHKOSH WI	NE	147.840	147.240	WB9TDU/R	O B A E Z	WINNEBAGO CTY. EG
OSHKOSH WI	NE	147.345	147.945	N9GHS/R	O PL A E Z	S.O.L.A.R. ASSOC
PARK FALLS WI	NC	147.600	147.000	WB9WIP/R	O	PRICE CO. RP ASSOC
PEPIN WI	NW	144.750	145.350	KB9S/R	O	WABASHA AREA ARS
PEWAUKEE WI	SE	147.810	147.210	WB9AKC/R	O PL6A	W.C.T.C.
PEWAUKEE WI	SE	448.125	443.125	WB9AKC/R	O PL3A	W.C.T.C.
PLYMOUTH WI	SE	223.340	224.940	KD9PE/R	O	KD9PE
PLYMOUTH WI	SE	449.350	444.350	WB9QCY/R	O E L	WIS EXP RADIO ASSOC
PORT WASHINGTON	SE	146.370	146.970	W9CQO/R	O A PL E Z	OZAUKEE RADIO CLUB
POWERS LAKE WI	SE	448.925	443.925	KC9XN/R	O PL2A	LAKE/KENOSHA AMA SOC
RACINE WI	SE	147.870	147.270	W9UDU/R	OAEZ1PR	LAKESHORE RP ASSOC
RACINE WI	SE	448.950	443.950	KA9JMK/R	O	KA9JMK
RACINE WI	SE	449.050	444.050	KA9LOK/R	O	KA9LOK
RHINELANDER WI	NC	146.340	146.940	W9ZZZ/R	O	RHINELANDER RP ASSOC
RICE LAKE WI	NW	144.510	145.110	WA9CXN/R	O	WA9CXN
RICE LAKE WI	NW	147.630	147.030	WB9WFC/R	O	BARRON CO. ARES
RICHLAND CENTER	SW	146.310	146.910	WB9SLI/R	O PL	PINE VALLEY RP ASSOC
RUBICON WI	SC	144.750	145.350	WB9KPG/R	O A E Z	WB9KPG
SALEM WI	SE	222.120	223.720	N9BBQ/R	O A E L Z	N9BBQ
SCHOFIELD WI	NC	144.630	145.230	WB9JGA/R	O	WB9JGA
SHAWANO WI	NC	144.750	145.350	WA9BZW/R	O	WA9BZW-N9DGL-KA9NWX
SHEBOYGAN WI	NE	144.510	145.110	KR9S/R	O	SHEBOYGAN CTY DX ASN
SHEBOYGAN WI	NE	147.660	147.060	W9RF/R	O A	SHEBOYGAN ARC
SHEBOYGAN WI	SE	223.340	224.940	KD9PE/R	O LINKED	INPUT TO PLYMOUTH WI
SISTER BAY WI	NE	147.780	147.180	W9QBJ/R	O	WA9PFQ-W9QBJ-EM GVM
SLINGER WI	SE	146.130	146.730	W9MQD/R	O	WASHINGTON CO RP GRP
SOUTH MILWAUKEE	SE	144.630	145.230	N9BHI/R	PL E	SO MILW ARC
STEVENS POINT	NC	144.570	145.170	KD9NV/R	O A E Z	KD9NV
STEVENS POINT	NC	146.070	146.670	WB9QFW/R	O A E	CENT. WI RADIO AMA.
STEVENS POINT	NC	146.385	146.985	W9NN/R	O	CENT. WI RADIO AMA.
STEVENS POINT	NC	448.950	443.950	K9MIF/R	O PL T	K9MIF
STURGEON BAY WI	NE	146.130	146.730	WB9YUY/R	O	WA9PFQ & WB9YUY
STURGEON BAY WI	NE	147.810	147.210	W9A1Q/R	OB1800AC	DOOR CTY EMER GOVT
STURGEON BAY WI	NE	449.000	444.000	WB9YUY/R	O	WB9YUY & K9GOZ
STURTEVANT WI	SE	29.540	29.640	WA9ZYD/R	O	WA9ZYD
STURTEVANT WI	SE	223.140	224.740	WA9ZYD/R	O A	WA9ZYD
SULLIVAN WI	SC	147.855	147.255	WA9VEU/R	O PL	WA9VEU
SUPERIOR WI	NW	146.160	146.760	W9BWK/R	O	TWIN PORTS AREA RA
SUPERIOR WI	NW	146.220	146.820	WA9VDW/R	O PL A	TWIN PORTS AREA RA
SUPERIOR WI	NW	449.900	444.900	WA9KLM/R	O A	WA9KLM
TOMAH WI	SW	144.790	145.390	N9BOE/R	O	N9BOE
TOMAHAWK WI	NC	144.830	145.430	N9CLE/R	O A	TOMAHAWK RPT. ASSOC
TOMAHAWK WI	NC	222.160	223.760	N9CLE/R	O	TOMAHAWK RPT. ASSOC
TREVOR WI	SE	447.600	442.600	KA9VZD/R	O	KA9VZD
WALES WI	SE	222.520	224.120	WB9DRO/R	C	WB9DRO
WALES WI	SE	449.975	444.975	WB9DRO/R	C	WB9DRO
WAUKESHA WI	SE	147.990	147.390	N9KS/R	O	E.A.R.S.
WAUPACA WI	NC	147.990	147.390	WA9FDC/R	O	WAUPACA ARC
WAUSAU WI	NC	144.850	145.450	WB9JGA/R	O	WB9JGA
WAUSAU WI	NC	146.040	146.640	W9SM/R	O A	WIS VAL RP ASSOC
WAUSAU WI	NC	146.220	146.820	W9BCC/R	O E	RIR MTN RP ASSOC
WAUSAU WI	NC	147.660	147.060	W9KRY/R	O	W9KRY
WAUSAU WI	NC	222.700	224.300	K9DB/R	O E	CENTAUR
WAUSAU WI	NC	223.140	224.740	WB9JGA/R	O	WB9JGA
WAUSAU WI	NC	439.250	421.250	AD9W/R	O E PL	VIDEO
WAUSAU WI	NC	434.750	425.750	AD9W/R	AURAL	-4.5 IN +4.5 OUT
WAUSAU WI	NC	448.750	443.750	KC9NW/R	O	KC9NW
WAUSAU WI	NC	448.750	443.750	KC9NW/R	O	KC9NW
WAUSAU WI	NC	449.300	444.300	W9BCC/R	O E	W9BCC
WAUSAU WI	NC	449.700	444.700	KC9NW/R	O E	KC9NW
WAUSAU WI	NC	449.700	444.700	KC9NW/R	O CA	KC9NW
WEBB LAKE WI	NW	144.590	145.190	NOEDV/R	O	NOEDV
WEST ALLIS WI	SE	222.920	224.520	KA9JCP/R	O A E	KA9JCP
WEST BEND WI	SE	147.780	147.180	WA9THF/R	C	WA9THF-WA9HFB
WIND LAKE WI	SE	52.330	53.330	N9DIR/R	O	N9DIR
WIND LAKE WI	SE	448.500	443.500	N9DIR/R	O	N9DIR
WINNECONNE WI	NE	449.750	444.750	KA9UNC/R	O	KA9UNC
WISCONSIN RAPID	NC	144.690	145.290	N9EJO/R	OPLAEZ	N9EJO
WISCONSIN RAPID	NC	146.190	146.790	W9DQA/R	O E Z CA	MID-STATE RP ASSOC
WISCONSIN RAPID	NC	147.930	147.330	K9PJB/R	O CA E Z	WIS AIRWAYS RP ASSOC

The Old Family Album



MAKING A HOUSE CALL: Ken Slate, W9ITW, of Ripon, checks the health of a repeater with a homebrew Motorola test set. This photo was taken somewhere around 15 years ago, and shows Ken checking operation of one of the Navy-Marine Corps MARS VHF-FM repeaters; his MARS call sign was NØHIT. This photo was taken by K9PKQ with his ever-present camera; of course, K9PKQ is now K9ZZ.

President Reagan Signs Bill

(Continued from page 13)

Section 10 does NOT turn back the clock to August 3, but it COULD become an important building block toward a solution to the 220 - 222 MHz problem with which amateurs can live.

RECONSIDERATION

As has been reported earlier, Federal Register publication of the FCC Report and Order in General Docket 87-14 came on September 19. That began the 30-day period during which Petitions for Reconsideration could be filed. Some 600 were filed, including those on behalf of the Secretary of Defense, and ARRL. These petitions were put on notice by the Commission on November 1, starting a fifteen-day period for Oppositions to Petitions for Reconsideration and a ten-day period for Replies to Oppositions. The test of whether the petitions succeed or fail will be in whether they can convince the Commission that new and novel material has been furnished, not previously available, which should call for a different result. Time will tell.

And then there remains another available remedy, a Petition for Review in the US Court of Appeals for the DC Circuit.

Meantime, amateurs do not have to vacate 220 - 222 MHz until after "service rules" have been written for Land Mobile use of the band, and plans are set for coordination between Government and private land mobile users.

In closing this report, the staff of ARRL want to emphasize that we achieved passage of Section 10, S.1048, through a total team effort involving amateur radio volunteers all over the country who came to Washington or cornered their legislator when he or she was "on the stump," or telephoned, or sent a telegram, or mailed a letter or posted a QSL with a terse message. The Team included Senator Wilson, Representative Dornan and their staffs; the officers of ARRL, the consultants, the normal League crew in Washington, and the ARRL/QST staff who burned the midnight oil on extra jobs which always had to be done "yesterday." If the same determination, the same cooperation continue, Amateur Radio may yet carry its point: The Public needs its emergency radio service provided by amateurs, and that the Amateur Service needs 220 - 225 MHz for its state-of-the-art, state-to-state packet message technology.

(From The ARRL Letter, published by the American Radio Relay League, Newington CT 06111)

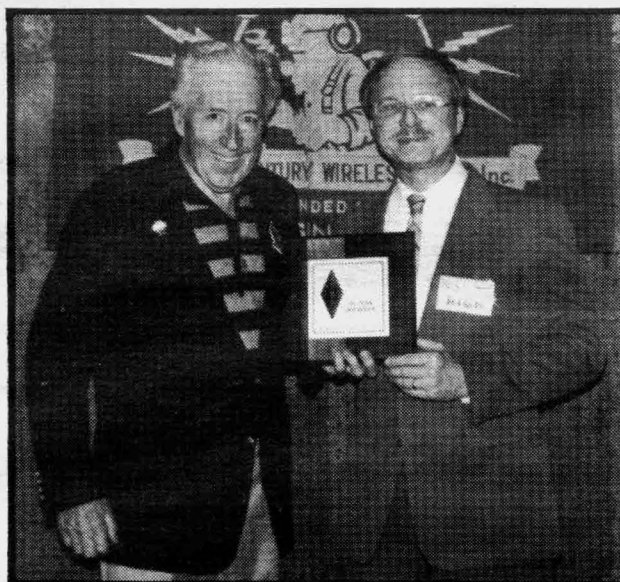


(Continued from page 12)

In the business meeting, the minutes and the treasurer's report were read and approved. A report from the Auditing Committee was given. Also, a letter from Jim Walsh (W7LVN), announcing his candidacy for President of QCWA was read by the secretary. The amendment for free chapter membership for qualified elderly members was referred back to the board for study and rework.

An election of four directors was conducted. Those elected were:

Uke Minaga, W9DU
Roy Pedersen, K9FHI
Bob Baird, W9NN



Wisconsin Section Manager Rich Regent, K9GDF (right), presents an ARRL 50 year membership plaque to Fred Linn, W9NZF, Cedarburg, during the QCWA Chapter 55 Fall meeting at Waupaca.

- Photo by Les Peterson, W9YCV

Travis Baird, W9VQD.

Travis reported on the recent QCWA Convention.

In the board meeting, officers elected were:

Chairman: Ed Seruga, KE9JJ
Vice-Chairman: Fergie Ferguson, W9-IEM

Secretary: Roy Pedersen, K9FHI

Treasurer: Rich Regent, K9GDF

The business meeting resumed, and Fergie introduced the new chairman, who then took over and introduced the other officers and directors. Ed and Travis will find a location in southeastern Wisconsin for the Fall 1989 meeting.

The meeting was adjourned, and an auction followed.

MARK YOUR CALENDARS: The Spring 1989 meeting will be in Wisconsin Rapids on Saturday, June 3, 1989.

- Les Peterson, W9YCV, 9741 West Howard Avenue, Greenfield, WI 53228

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Ham Radio from Russian Space Station MIR

The following details are available at (ARRL Letter) press time regarding the operation of U1MIR from the manned Soviet Space Station.

Operations will commence with a period of testing and training on November 14, and will be limited to contacts with specific Soviet ground stations. If, upon completion of this testing period, no problems are found in the operation of the amateur communications system, general amateur operations from U1MIR will commence on November 19. Operations are to be limited to crew rest and recreation periods on Saturdays and Sundays only.

U1MIR will transmit on 145.550 MHz FM, and will listen on 145.525 and 145.575 MHz for responses from earthbound amateur stations.

The current crew aboard MIR is expected to return to Earth sometime in early December. The relief crew is expected to place a 10-watt 2 meter FM transceiver aboard Mir and operate with the call sign U2MIR. Reports indicate that subsequent operations with the various relief crews will use the call signs U3MIR, U4MIR, etc., all the way through to UØMIR.

- From The ARRL Letter



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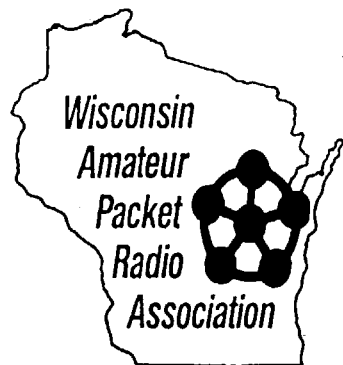
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BURLINGTON, WI 53106

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

WAPRA Meeting Minutes - October 30, 1988

Notes from Dan - WB9TYT, Chairman of WAPRA

RiverLAN Conference in ARRL GATEWAY 10/20/88
from "Gateway":

Minutes of the meeting of the Wisconsin Amateur Packet Radio Association held this date at the KMRA swapfest in Waukesha. The meeting was called to order at 10:51 am by Chairman Dan Bolander, WB9TYT. Minutes of the Board meeting of August 13, 1988 were read. Treasurer Carl Schumacher, N9BYS, gave a report.

Roy Hawkins, WA9KEC, explained recent changes in his node operations. His 145.01 node has been shut down and the same equipment is being used on the LAN frequency, 145.09. He also said that he is planning to put 145.09 and 446.1 nodes at Burlington has opened up a backbone path into Illinois and Indiana. An experimental 4800 baud link on UHF has been in operation for one week and looks promising as a way of increasing performance on the backbone.

New nodes are expected to be operational shortly in Tomah, Merrill, and Athelstane. It is hoped that WA9SXN in Green Bay will be converted to a node in the future. Nels Harvey, WA9JOB, Wisconsin Association of Repeaters Frequency Coordinator, noted that the uncertainty of future 220 MHz bandplans should be considered in planning any packet linking on that band. He said that proposed bandplans he has seen thus far place packet linking in the 222-222.5 MHz segment.

Dan stated that the Board felt that dues of the Association support the networking ambitions of WAPRA. He pointed out that WAPRA is already assisting by providing EPROM and 32K RAM chips to some areas so that digipeaters can be converted to nodes. Future assistance might include obtaining TNCs, antennas or surplus radios. A motion was made by W9CWD that a recommendation be put before the membership at the next regular meeting that dues of the Association be increased to \$12.50 per year, effective at the start of the next fiscal year (July, 1989). The motion was seconded by WA9KEC. Following discussion the motion was passed on a voice vote.

The possibility of WAPRA sponsoring a day-long packet radio conference was discussed. It would be similar to the successful Riverland Packet Conferences held twice a year in the La-Crosse area.

The meeting adjourned at 11:55 am.

Respectfully submitted,

Dave Knaus, WA9POV Secretary

WAPRA Financial Report for October 1988

Income	\$5.50	Cash on hand	\$64.18
Expenses		Bank Bal Fwd	\$622.50
BSSS	\$5.50	Net balance	\$686.68
KMRA Table/Pwr	\$13.00		

Carl..N9BYS - Treasurer - WAPRA

This past month was a very exciting and full month as far as packet meetings and planning sessions are concerned. It started out with my traveling to La Crosse to attend the Riverland Conference. It was well worth the time to attend. There was something for everyone, from topics of Networking and where are we heading to Packet Radio via Satellites. I did not attend the "bull" session as I wanted to hear Dan Frank's session on TCP/IP, but was told that a very lively discussion was going on there. It was well attended by Hams from Wisconsin & Minnesota and this was the place to compare notes. I would recommend attending their spring session.

The following weekend was the WAPRA meeting at the KMRA Swapfest in Waukesha. We had a working station at the site and Joe, W9CWD, gave demonstrations every half hour with some lively question and answer sessions on all you ever wanted to know about operating a Packet station. We also held our quarterly meeting and discussed the subject of WAPRA assisting with some of the financial responsibilities of a dedicated Node or Digipeater. This would require our raising the dues to cover these expenses. A final vote was deferred to our January 14, 1989 meeting in Waukesha at the WARAC Swapfest.

The Wisconsin Digi/Node/PBBS list is growing as more info arrives. These are all available 24 hours a day and should be a big help in covering the state. We have a new node in Tomah with the call N9BOE-1 and plans are on the table for a node in Medford. The radio and TNC are all set to be put on line in Athelstane and should provide the missing link between Iron Mountain and Green Bay.

There are also plans to upgrade WA9SXN digi in Green Bay to a node. Donations are being collected for this project. Testing of a 4800 Baud link is happening now in the Milwaukee area and plans are being drawn to upgrade the 440 backbone to Illinois to 4800 Baud to feed their 9600 Baud backbone. This will cost about \$60.00 per node.

Plans for a 220 backbone were also drawn up for a link from Slinger to Madison and points South and North from there. It looks like we are making some headway in our network in Wisconsin, but we still have a long way to go. If we all work together, we can make it happen.

If you would like to join WAPRA and help with improving our Packet activities in Wisconsin, the dues are just \$5.50 now. As a bonus you will receive the Badger State Smoke Signals every month. You can find an application form on any PBBS in the state, or contact Carl, N9BYS, at his PBBS in Burlington on 145.09.

Thank you,

Dan, WB9TYT, Chairman of WAPRA

RiverLAN FALL CONFERENCE

One of the more important aspects of packet radio operation is the opportunity for packet radio operators to get together to discuss the many facets of their interests and to obtain answers to questions and concerns. In the fall of 1986, a band of 12 packet-radio operators in the La Crosse, Wisconsin and Winona, Minnesota area got together to discuss such things. The interest was so high and the excitement so great that they decided to get together every six months and call their meeting a "packet conference." The gang found that each and every conference attracted more and more hams interested in packet radio. The most recent conference, the RiverLAN Packet Conference, was held on October 22 and attracted 35 packet-radio enthusiasts from as far away as the Twin Cities in Minnesota and Milwaukee, Wisconsin.

If you have never heard Carl Estey, WA0CQG, talk about amateur satellites in the context of "90-minute whizzers" and "half-day hummers," then you have missed a real treat. Carl gave an excellent and well-organized presentation on digital communications from spark gap to packet radio and emphasized, in an easy to understand offering, satellite packet-radio communication. Carl discussed the current OSCAR 13 as well as future satellites including PACSAT, which will provide store-and-forward capabilities similar to current PBBS operation.

TCP/IP has been a subject of interest to RiverLAN packet-radio operators for quite a while. Dan Frank, W9NK, came for a follow-up presentation to the last conference on the subject of TCP/IP. Many of our regional packet-radio operators are attempting to implement TCP/IP in conjunction with the current NET/ROM network and Dan provided assistance to those attempting to get up and running and how to set up for forwarding on the NET/ROM network.

For those not interested in TCP/IP, an alternative workshop was offered on general packet-radio discussions. Among the many topics discussed in this session was the subject of interfacing TNCs with various computers, for example, the possibility of AEA plug-in software for the Commodore 64 and PK-232 being used with other TNCs (the conclusion was that it could not be done).

Also discussed in this session was a drawback of the current WA7MBL PBBS software (Version 5.12): the default "private" messages. In general, the conclusion was that it is sometimes interesting and informative to "read the mail" meant for others and valuable tips can often be found by doing so.

Another topic was trying to keyboard outside of the local LANs. A proposal was put forth to attempt to develop a user data base with such things as the time a station is in operation, frequency of operation, nearest digipeater, home PBBS, etc. No specific methodology of implementing such a database was proposed, however.

These concurrent sessions went well beyond their time limitations. Fortunately, they were the last sessions of the day. It seems that the discussions and interest dictate longer sessions!

Also discussed at the conference were a presentation by Bob Dubke, KOSIR, on using the WDOGNK CD-ROM Callbook feature; local issues, including an update on the RiverLAN digipeaters and discussion on Skywarn and packet radio; a professionally produced video presentation offered by Lyle Vogt, KA0UDL, on the Minnesota Ham and Computer Fest; and a presentation by WAPR representative Dan Bolander on "Networking...Where Do We Go from Here."

Of course, one of the other fine opportunities for "talking packet radio" was during the lunch hour in which participants had the opportunity to interact, learning what others were doing and informing others of exciting things they were doing. As usual, the conference was too short. Many would like to have had more time, but then, that is why they will probably come back to the next RiverLAN Packet Conference in April 1989.

If your local LAN has not considered sponsoring a regional packet-radio conference, take a cue from the RiverLAN group and do it now. The interest is high and the opportunities so few that groups should seize upon the chance to sponsor a regional forum where issues, developments and questions can be addressed.

Duane Fruechte - W9HWQ & Kent Helman - W9LZQ

Midwest Packet Balloon Mission a Big Success

Bill Brown - WB8ELK and Phil Frazier - KA8TEF conducted the most successful Amateur Radio balloon launch to date from the Midwest on Sunday October 23. The package consisted of an Icom 2AT and Pac-Comm TNC. The package lifted off at about 9:30 AM EDT and provided 2 hours of energetic packet activity before the balloon burst and a parachute returned the unit back to an undisclosed landing site.

Operators running high power levels were able to work as many as eight states with the balloon serving as digipeater. Unfortunately, as we in satellite communications well know, the hi-power operators kept many from enjoying the mission who would have otherwise made connects.

The flexibility of packet operation did allow many stations to serve as gateways to the balloon for the low power local operators. All in all, the enthusiasm over packet operations was high and showed that the packet operating mode is here to stay. The range of operations extended out to 400 miles from the launch site at Findlay, OH.

Tandy 100/102 Noise

The Tandy 100 and 102 portable computers both have a very hefty RF output at 145.05! That makes them rough to use with portable packet on 2 meters. Does anyone have a fix?

Bob - K3RC @ W8HHF

Attention MFJ-1278/PC-XT & Clone Users

There is new terminal software designed specifically for use with the MFJ-1278 Multi-Mode Data Controller. It is free for "beta testing" from KA3DXX for a self-addressed stamped diskette mailer and diskette formatted for MS-DOS. This software was written by K3QAP (Dick) and is available exclusively via KA3DXX by U.S. Mail.

NOTE: Although this software is designed specifically for use with the MFJ-1278, it may also be compatible with other MFJ TNC's.

2. To start the program, simply type:

1278

The default is communications port 1 at 4800 baud.

IF THIS IS NOT SATISFACTORY for your system then type:

1278 a,b

where a is 1 or 2, b is 300, 1200, 2400, 4800, or 9600

EXAMPLE: MFJ 1,300 sets comm port 1, 300 baud. See Also Par 5, below, for additional information.

3. No file other than 1278.EXE is necessary, but two auxiliary files, which may be created by any text processor such as EDLIN, Q, WORDSTAR, etc., allow you to customize the setup of the MFJ-1278 to your own specifications. A sample file OPEN.MFJ is included and may be edited to your liking.

4. ANY legal MFJ-1278 command may be included in the file. Additionally, other commands allow you to turn color on/off, choose colors, select an text editor, name your connect file and your log file.

5. You may include a SETUP command in the OPEN.MFJ file to tell the MFJ which comm port to use when initializing. If you use this option, then the setup command MUST BE the first command in the OPEN.MFJ file. The format is:

SETUP 1,300,E,7,1

The command line option, described in par 2, above, overrides any file setup command.

6. AUTOSTAT. An interesting feature is toggled on and off by F9. When on, the status of each of the 10 streams and call sign of any connection is displayed on the top line of tech in progress, and a reverse video call sign indicates a current connection. This is particularly useful in multi station contacts.

7. KENWOOD. An option to remotely control a Kenwood transceiver has been removed from this version.

8. Hopefully, the remaining functions are self explanatory. The program shud not hang up regardless of what keys you may hit, with the exception of the MFJ-1278 command which sets the MFJ to transparent mode. This is not a defect in the software.

9. F10 is the way to exit. It gives you a second chance to change your mind. In my CLOSE.MFJ file, I issue a restart to insure that the transmitter is not keyed when I am not expecting it. (This can happen!)

10. Enjoy and let me know. Send provide copies to others. The final product will be made available to amateur radio operators via KA3DXX. Hopefully an orderly distribution will allow us to keep track of who has what when modification updates are available.

12. Send self-addressed stamped diskette mailers and diskettes to:

George H. Stickler - KA3DXX
8249 Quarterfield Road
Severn, Maryland 21144

How clean is CLEAN?

Even after more than two decades of intimate involvement with semiconductors, Andrew S. Grove never ceases to be amazed by technology's relentless march toward the infinitesimal. The chief executive officer of Intel Corp. calls chipmaking "the science-fiction stuff we do to silicon."

That description is even more apt as the chip industry plunges into the superchip era and the size of transistors and microcircuit lines shrinks to 1 micron or less - roughly 1% of the diameter of a human hair. At 1 micron, even a flu virus can render a chip useless. That's why today's so-called clean rooms are 1,000 times cleaner than a hospital's operating room.

FILTHY WORKERS. In the Class 10 facilities used to make the last generation of chips, a cubic foot of air could contain no more than 10 .5micron particles - and nothing bigger. Intel's new Albuquerque plant, where the 80486 microprocessor will be built, has a Class 1 rating: less than one .2 micron particle per cubic foot.

As transistors got smaller, elaborate air-control systems were added. In so-called vertical-laminar-flow clean rooms, the air streams straight down so that dust and other particles are flushed quickly through holes in the floor. Every few seconds all of the air in the clean room is evacuated, filtered, and recirculated.

For chips with submicron geometries, though, even all that isn't enough. The "bunny suit", enclosing the body except for the face, was just too leaky. So the fashion in Class 1 attire is total enclosure - including a helmet that filters exhaled air.

Making chips is similar to printing a photograph: Shine light through a negative onto a photosensitive surface, then chemically develop the image. But things quickly get very complicated - several times. Each exposure must be placed to within a small fraction of a micron to make good electrical contracts.

QUIET ZONES. The tolerance is so tight that a passing truck, or even someone running down the hall in an adjacent part of the building, could cause enough vibration to throw the superimposed images out of whack. To prevent that, clean rooms are isolated from the surrounding building with vibration-damping seals in floors, and the rooms are built only in places with stable soil.

A decade ago good chips could be made in a clean room shaking at 1,000 micro-inches per second. In a Class 1 plant, anything above 200

transistors shrivel to 0.5 micron - expected by the mid-1990s - even half of that will be excessive!

Packet Radio and the NTS

Last Saturday morning I received a phone call from a young lady asking if I could send a message to her brother, an active duty sailor US NAVY in the Phillipine Islands. The message concerned a close family member who had passed away. I said I would try. Well, I sent a NTS format message to 96654 @ NTSCA. I figured someone in California would know how to send traffic to FPO 96654-1218, Cubi Point, P.I.

I sent the traffic message to NC8Q-BBS @ 1638z, which forwarded to:

NC8Q-BBS to:
N8GTC (on 221.11 MHz) to:
WBAKF-10 to:
WBAKF-1 to:
W6CUS-1 RED CROSS HQ California to:
Red Cross Subic Bay Phillipines @ 1945z.

In just three hours seven minutes to Phillipines, Wow !!!

Accolades and commendations to all who participate in the NTS and Packet Bulletin Board Systems. Thanks to all.

Chuck - NC8Q

YABB ???

But what is YABB? YABB is Yet Another Back-Bone. YABB is a common man's attempt to establish a Wide Area Network (WAN) at reasonable cost. The efforts of the AEA and GLB 9600/19,200 baud circuits and the GRAPES 56k baud modem are commendable, but VERY expensive. What is needed right now is an inexpensive WAN. YABB follows the model of a WAN in California

that uses the Amateur 6 meter band. Using low cost surplus radios and the HAPN 4800 baud modem, we have developed an inexpensive WAN for use today. YABB nodes will be coming on line very soon in Hometown (Ft. Wayne) and South Bend, Indiana, and in White Pigeon and Grand Rapids, Michigan. The YABB project, along with a **WORKING** demo of the 6m backbone was displayed at the Ft. Wayne Hamfest on November 13th with the developers N9BAC, NQ9Q, WD8QPG, and W8BURE on hand to demonstrate how it can inexpensively link LAN's together.

Attention KPC-4 Owners:

I recently obtained a correction notification from Kantronics, having to do with an error discovered during the production of all KPC-4 units prior to serial number 69489. If you have a KPC-4 below this serial number <#69489>, you should reverse the two capacitors C-40 and C-41, they have been installed backwards in all KPC-4s. The proper capacitors are 10mf, 65VDC electrolytics. You may send your unit back to Kantronics and they will correct the error at no charge to you. Should you choose this option, please drop a note in with your unit stating "Reverse C-40 and C-41". If you have any question concerning this problem you may contact Kantronics service department at 1-(913)-842-4476 for further information.

Darrell - N2CVQ

Kantronics Announces version 2.85 update option

We have introduced several enhancements to the Kantronics TNC's with version 2.85. Many of the features included are a direct result of users calling with suggestions for improvements to the product.

Some of the new features include the ability to stay connected to a distant KA-NODE when the far end station disconnects, if desired. This

must be established by the end user when he builds his KA-NODE link from one node to the next or to the other end user. This allows you to establish a path to a distant city, talk to someone there, and then when that station disconnects, you remain connected to the distant city. This can be very useful for making multiple connections in a remote location.

Another feature added is the ability to automatically switch a user into your PBBS when you are not available - no more need for the user to issue a new connect to your PBBS. PLUS all units except the KPC-1 now feature a mail waiting indicator! Anytime there is mail in your PBBS for you and you are not connected to someone, your STA light will blink to indicate that you have mail.

For KAM owners, we've now made WEFAX tuning easier - use the bargraph tuning indicator to tune the WEFAX station by setting MARK and SPACE tones to 2300 and 1500.

But really - that's not all. We've got enhancements for everyone in the new 2.85 update option - BBS operators can now set the BBSMSG command ON and eliminate the stream switching characters from the connect messages, and also eliminate those pesky *** connect request messages. Even TCP/IP users will like the ability to operate KISS mode on either port, simply by setting MAXUSERS 0/n or n/0 in either the KPC-4 or KAM.

The KA-NODE now can be turned into a "Wildcard" node, allowing an end user to establish more than one connection to the KA-NODE, and packet cluster operators (and everyone in fact) will enjoy the user selectable KA-NODE timeout timer (KNTIMER).

In addition to all this, the list format from the PBBS has been modified to be more like the RLI or MBL versions of the BBS. Each message is listed on a separate line, with SIZE, TO, FROM, DATE, TIME, and SUBJECT. Additionally, a user can now LM (List mine), RM (Read mine) and KM (Kill mine).

(continued on page 19)

WISCONSIN AMATEUR PACKET RADIO ASSOCIATION MEMBERSHIP APPLICATION

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ADDRESS _____

CITY _____ STATE _____ ZIP _____

HOME PHONE _____

HOME PBBS _____ MONITOR FREQ _____

HOURS OF PACKET OPERATION: DAY _____ NITE _____ 24-HR _____

STATION: POWER _____ ANT GAIN _____ HEIGHT _____

TNC _____ COMPUTER _____

STATION CAPABILITIES: HF _____ 2M _____ 220 _____ 440 _____

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PRIMARY INTEREST IN PACKET _____

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* NOTICE *
* To make things easier for all of us, please *
* notice this important notice about notices *
* You may have noticed the increasing number of *
* notices for you to notice. We notice that *
* some of our notices have been noticed. We *
* also notice that some of our notices have not *
* been noticed. This is very noticable. It has *
* been noticed that the response to the notices *
* has been noticeable. This notice is to *
* remind you to notice the notices and respond *
* to notices because we don't want the notices *
* to go unnoticed. (Minnesota MARS 1976) *

HAM RADIO - HALF TRUTHS

by Art Unwin, KB9MZ, SHORT C.I.R.C.uits
(via ARNS)

- Front to back is only a basis to compare antennas with. The guy you don't want to hear is never at the back - always at the side!

- When you have an SWR of 3 it is usually a poor connection the braid to the connector! It's always up the tower and it is ALWAYS the one you taped up.

- Always carry a spare nut, etc., when on the tower. If you don't, then you will definitely lose one when you are at 30 feet plus.

Yellow Thunder Amateur Radio Club



K90DK
WB9FDZ

Harry Westlund, K9EHJ,
Secretary
720 Lincoln Avenue
Baraboo, WI 53913

The November 16, 1988 meeting of the Yellow Thunder Amateur Radio Club was called to order by the President at 7:46 p.m.

The following members and guest were present:

Steve R. Schowegler, WB9RNL	Wisconsin Dells
Duane Grotophorst, KA9HKL	Loganville
Ken Ebner, K9EN	Portage
Harold Reif, KA9TQP	Baraboo
Harry Mayland, K9FFT	Baraboo
Jim Decker, WB9UQT	Baraboo
Art Kleefish, W9WSS	Baraboo
Harry Westlund, K9EHJ	Baraboo
William P. Giese	Baraboo
Tom Schlick	Madison

The minutes were approved as published in BSSS.

The Treasurers report was gives as: Operating Balance \$192.47 with a total balance of \$224.41.

The Secretary passed around the latest issue of the ARRL Field Forum Bulletin.

The President announced all 6 members of the Novice class are still going strong. Should be ready for taking the test in about 3 weeks.

The President asked for nominations for new officers for 1989. The following were presented for nomination:

President - Duane Grotophorst, KA9HKL
Vice Pres - Art Kleefish, W9WSS
Secretary - Harry Westlund, W9EHJ
Treasurer - James Decker, WB9UQT

The election will be held at the next meeting.

The "Buck Night" drawing was held, and Peter Sweeney, WD9JIB, was the winner but was not present to collect his reward.

Art Kleefish, W9WSS made a motion for adjournment, and it was seconded by Harry Mayland, K9FFT. The motion passed and the meeting was adjourned at 8:20 p.m.

After a short break, out guest for the evening, Mr. Tom Schlick, Manager of Channel Management for Wisconsin Bell gave a slide presentation on fiber optics. An open forum followed for a question and answer session. Following this the

group went to the local Wisconsin Bell Central Office for a tour of the new switching facility.

The club wants to thank mr. Tom Schlick and the Ameritech Cor. for a most interesting and instructive evening.

Respectfully Submitted,
Harry Westlund, K9EHJ, Secretary

YTARC BIRTHDAZE

Jim Romelfanger	K9ZZ	December	6
Duane Grotophorst	KA9HKL	December	31
Art Kleefish	W9WSS	December	20

SENTENCE SERMON

Sing the song of great joy that the angels began,

Sing the glory of God and of good will to man.

--John Greenleaf Whittier

(WAPR - KANTRONICS)

(continued from page 18)

With all these enhancements, we think you'll really re-discover the pleasure that is waiting for you with your 2.85 upgrade option. Best of all, in the true Kantronics tradition, we've kept the cost to you as low as possible - just a fraction of the cost of a new unit. We're committed to your enjoyment of your hobby, and listen to your ideas.

Call us for pricing of the version 2.85 upgrade option for your unit - you'll be amazed that you can get so much for so little. * Kantronics - RF Data Communications Specialists (913) 842-7745

Phil Anderson - WOXI
President, Kantronics

SWAPFESTS AND SOCIAL EVENTS A COUPLE OF ADDITIONS

MARCH 19-20, 1989 -- The 1989 Wisconsin QSO party will be held from 1800Z March 19, 1989 to 0100Z March 20, 1989. For more information watch BSSS or contact the sponsor, West Allis Radio Amateurs Club, P.O. Box 1072, Milwaukee, WI 53201.

DECEMBER 5, 1988 -- The Madison Area Repeater Association will hold their annual Christmas Party, at the Heritage House, East Washington Avenue, Madison, WI. Plenty of delicious food (ALL YOU CAN EAT) and entertainment for only \$8.00 per person. Happy Hour (cash bar) at 6:00 p.m. and dinner at 7:00 p.m. For reservations contact Clyde Downing, W9HSY on the MARA repeaters or at (608) 274-5153.



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WANTED: Used, recent-vintage short receiver. Write, giving condition and price. Bob Seymour, 543 Park Ave., Prairie du Sac WI 53578.

WANTED TO BUY: Used, microprocessor-based repeater controller. Will consider any controller, but particularly interested in ACC Model RC-850. Please send the following info: make and model of controller, version of software, age of unit or manufacture date, serial number of unit, asking price, your name, address, phone number, and best time to call. Rib Mountain Repeater Association, P.O. Box 323, Wausau, WI 54402.

FOR SALE: Spectrum Communications 75-watt output repeater, Model SCR-1000/SCAP. Completely built into 6-ft. rack cabinet w/Sinclair duplexers. 4 years old. Crystalled on 144.570/145.170 MHz. All equipment manuals. For more info, send your name, address, phone number, and best time to call to: Repeater, P.O. Box 401, Abbotsford, WI 54405.

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July 8, 1989

(Held every July)

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Shepard Ave. Oak Creek, WI

South Milwaukee ARC PO Box 102
Milwaukee, WI 53172

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March 19, 1989

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On Highway 18 West of Jefferson, WI

P.O. Box 321, Milton, WI 53563

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